The Education Digest

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Some Revolutionary Changes Anticipated

Public Schools in the Decade Ahead

SCHOOL ADMINISTRATION BRANCH STAFF,
U.S. OFFICE OF EDUCATION

In School Life

THE decade just past may well become known as the period when the United States reawakened to the importance of education. The country increased its efforts to provide facilities and staff, not only to accommodate the mounting enrolments but to improve the quality of education generally.

But the decade ahead promises even more dramatic changes in the public schools. By 1969-70 there will be nearly 32 million pupils in grades kindergarten through eight, 15 percent more than the 28 million in 1959-60. There will be 12.4 million in grades 9-12, or 47.5 percent more than in 1959-60. And if college enrolments maintain the present rate of increase, the total number will nearly double present enrolment and will represent about 44 percent of all 18-to-21-year-olds in the country.

Everyone, in all areas of education, will be affected to some degree by the changes that will occur in the next decade. One area that is expected to experience dramatic change is that of school facilities. Predictions based on population and school enrolment indicate that the United States will need 600,000 additional classrooms and related facilities in the 1960's. Design and use of these facilities will be influenced by the following factors:

Reported from School Life, *XLIII (January 1961), 5-11.*

1. Acceleration and improvement in state agencies' services to local districts, particularly in the interest of long-range educational planning, and the coordination of federal, state, and local efforts to provide the needed schools.

2. Technological developments in construction methods, engineering, building materials, and the manufacture of school equipment.

3. Research and experimentation in building design.

4. Socioeconomic influences on the size and number of school districts, the organization and size of

each school, the methods of financing school-construction programs and other educational services.

5. Instructional innovations, including various teacher-student ratios, team teaching, educational television, machine teaching, and other technological developments in instruction.

CONSTRUCTION CHANGES

It is expected that the foregoing influences will produce the following changes in construction and use of facilities:

School buildings will have more flexibility. Space will be adaptable to changing teaching methods and varying scheduling patterns. Walls will be easily movable, permitting rooms to be divided or expanded. It will be possible to subdivide auditoriums into instructional areas of various sizes, thereby increasing the use of auditorium space by as much as 90 percent.

School facilities will be more extensively used for both school and community activities. Trends toward a longer school year, a longer school day, more adult-education programs—all these will increase the use of school facilities. Community groups will use school facilities more and more for recreation, meetings, and projects.

School planners and architects will make significant changes in school-building design. In large cities, where land costs are high, there are likely to be schools with underground gymnasiums, auditoriums, civil-defense shelters, automobile parking, and towers for instruction, utilities, and general service facilities. There will be other innovations, such as:

1. The windowless school, artifically lighted and mechanically ventilated.

2. The "school in the round," which requires less building material, less corridor space, and gives each classroom more outside glass than conventional buildings.

3. Movable rooms made up of modular sections. These are easily assembled and disassembled, can be set up singly or in clusters, and are comfortable, functional, and architecturally pleasing.

4. Small neighborhood schools for young children (in some combination of grades kindergarten through three) in heavily populated areas. These will eliminate need for transportation service and, since they do not require large gymnasiums, auditoriums, and cafeterias, will not require large sites.

School buildings will be planned and constructed for conversion to nonschool use. Urban schools that are abandoned as a result of out migration or changes in land use will be convertible to office, factory, warehouse, or other business and industrial use at minimum cost.

Buildings for joint occupancy will be constructed in heavily populated urban and suburban areas. These buildings will include dwelling units and school, or business offices and school. A tall apartment building, for example, will have families living on the upper levels

and their small children attending school on the lower levels. As the need for space in the primary grades decreases, space freed can be converted into dwelling units. If more school space is required, the process can be reversed. This will eliminate idle or waste space and will prevent overcrowding classrooms. Schools located near business districts can share buildings with stores, offices, and other types of business compatible with the operation of a school.

The school environment for both teachers and students will be more pleasant and comfortable. Year-round air conditioning will become more common, lighting will be improved, furnishings will be more attractive, and instructional equipment will be practical, functional, and easy to use.

School-plant operating costs will increase. Factors will be the maintenance of complicated equipment and the increased consumption of electricity for improved lighting and for electrically operated devices and equipment.

School buildings will be more efficiently and economically constructed. Modular design, repetitive use of component parts, new and faster construction techniques, and improved building materials will all be a part of the new efficiency.

STAFF CHANGES

And now, turning our attention to the people who will be working with these facilities, what changes can we expect to take place within the professional staff?

Both size and quality of the staff in educational institutions will be affected by society's demands in the 1960's. Standards will be raised for training and selection, for performance and growth, not only because society demands these improvements but because the profession will take on more responsibility for seeing improvements made. This increased acceptance by the profession of responsibility for its own excellence may be the most significant contribution of the decade to development and utilization of staff.

The quality of the candidates for instructional positions will be substantially higher. A greater proportion of college graduates will be attracted to education as a result of improved professional standards and conditions, including a better reward system.

Major changes will be made in the reward system, including salary, fringe benefits, and other compensations. As the several professional duties in the teaching situation become more clearly differentiated and the number of specialized positions is increased, professional and nonprofessional responsibilities will be more clearly defined. Opportunities for growth and advancement will rise sharply.

Greater reliance will be placed on objective measures in recruitment and selection of staff. Such measures will materialize from current research into prediction of suc-

cess. Use of these measures will be stimulated by the larger number of specialized positions for which requirements can be carefully delineated.

The teacher-class as the basic unit of the instructional program will be severely scrutinized. Advances in curriculum development and instructional materials and methods will necessitate the use of specialists and more flexible schedules from grades 1 through 12.

The total program of personnel administration will be more highly organized. Although many personnel functions will be decentralized, the development and coordination of system-wide policies, paralleling a carefully planned program of personnel administration, will be centralized.

The current emphasis on improvement of preparation programs for school administrators will be intensified. The characteristics of sound programs will be more clearly defined and the early identification and recruitment of potentially successful administrators will be more organized.

Fewer members of the professional staff will be trained in public teachers colleges. The change of teachers colleges to state colleges will be accelerated, and by 1970 there will be few public teachers colleges left. Educators will be trained in institutions that prepare people for other professions, too.

Organized and systematic in-service education programs for professional staff will be developed. Because of the rapid additions to knowledge in all fields and the scrutiny being given to teaching methods, educators will not long find their preservice training adequate. To maintain professional status, educators will regularly participate in many types of in-service education programs.

In general, the forces which in the 1950's gave impetus to inquiries into what is to be taught in the schools and how it should be taught will grow stronger in the 1960's; and there will be an intensive examination of curriculum, organization, instructional technology, and the use of staff. Many communities may well lengthen the school day to eight hours for intermediate and secondary grades, and the school year to 200 days for all. Summer sessions will become increasingly common as a means of expanding and improving programs. Education will be extended both upward and downward: there will be more kindergartens, more community colleges, and more publicly supported technical schools and junior colleges.

Above all, the people of the United States will increasingly recognize that no nation can be stronger than the sum total of the capabilities of its citizens, and that education is the key to the development of those capabilities. And the idea will gain ground that education is a matter of national interest and should be financed by the entire national economy. •

Results, Advantages, and Problems

Team Teaching

ROBERT H. ANDERSON

In NEA Journal

AT present there are about 100 communities throughout the United States engaged in one form or another of team teaching; hundreds of other communities are known to be planning toward it.

Though team teaching is new in a certain sense, it is actually an outgrowth of trends and movements in this and other centuries, rooted particularly in previous systems of deploying personnel and arranging pupils' daily programs.

The essential ingredients of team teaching are not only cooperation and collaboration in planning and presentation of the program, but also the assignment of specific leadership and responsibility to career-oriented teachers of superior training and competence. Communication among the staff is also required by the definition of each person's role. In many so-called "team" enterprises, what actually exists is merely a voluntary federation of sovereign teachers enjoying a cooperative-collaborative relationship, but within which no one can be held accountable for performance of the program.

Specifically, a teaching team is a group of several teachers (usually between three and six) jointly responsible for planning, carrying out, and evaluating an educational program for a group of children. For example, a team may consist of four elementary teachers, sharing about 3500-4000 square feet of classroom space and working with about 115 children.

One of the teachers might be a specialist in science and mathematics, another in language arts, a third in social studies, and a fourth in the creative arts. While each specialist might take leadership for planning and perhaps for a major share of the teaching in his area of special competence, all four teachers would be involved in the total instructional program, and there would not be departmentalization in the usual sense.

One of the four, on the strength of special qualifications and training, would be designated as team leader with responsibility for overall program coordination.

Since team teaching is still in its infancy, many questions as to its

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ultimate form and its merit must necessarily be postponed. An immediate need, however, is to make certain that team teaching is not disadvantageous to children. This applies especially to the elementary school, where the so-called selfcontained classroom has long been considered to be the cause of certain academic and emotional benefits to children.

WHAT EVIDENCE SHOWS

Data thus far is incomplete and tentative, but there is sufficient evidence to justify further exploration and development of team-teaching organization.

Measures of personality growth and of pupil adjustment have been the chief yardstick used in gaging the effect of team teaching on the emotional-personal-social welfare of children.

Reports show that team-teaching results are no less satisfactory than those from typical conventional teaching in elementary and secondary schools. There are slight indications that team teaching is particularly beneficial to markedly advanced and retarded pupils, and also signs that certain children find greater stimulation and security within team-teaching situations.

No support has appeared for the fear (expressed by critics) that some children will suffer emotionally or academically from team teaching.

Teachers on the whole have responded favorably to participation, although much remains to be done in training personnel for leadership roles and in devising efficient procedures for team operation.

A major problem reported by teams (and, we would add, by thousands of other teachers) is finding adequate time for planning and evaluation. Most teams have found themselves overwhelmed by the curriculum problems that come to light as they work together. Adequate guidelines to daily operations and scheduling, to techniques of instructing groups of various sizes, and to role performance are not yet available.

Communication within teams and between teams has yet to be perfected, and because of the frequency and intensity of contact, there are many complex problems of human relations.

Especially in elementary-school teams, it has proved difficult to find and to train persons for the specialist roles in subject areas. Persons with the training, experience, and temperament for leader roles are also scarce.

There is also the question of cost. Although new buildings designed for team teaching probably cost no more per pupil served than conventional buildings, the use of existing facilities generally requires at least minor changes in structure and physical arrangement. Teams usually require greater quantities and varieties of materials, library resources, and equipment than are found in most schools. Some projects do not cost more for total personnel budget, but others involve

salary supplements and/or teacher aides. It remains to be seen whether the expenditures pay adequate academic dividends.

Among the arguments supporting team teaching is that the superior teacher can be of much greater influence while still remaining in classroom teaching. Heretofore, the gifted teacher has influenced only a relatively few children, and opportunity for exemplary or semi-supervisory influence over fellow teachers has been virtually nonexistent.

It is also argued that the team-leader role will attract more superior persons to the teaching profession. Reports from pilot projects call attention to the high caliber of recent applications for team positions, lending support to this expectation.

Team teaching theoretically provides a great deal of flexibility and efficiency in the use of time, space, materials, and teaching talents. Team members, not administrators, make decisions concerning the program on the basis of their joint observations and evaluations. Communication is not left to chance, but is required by both process and structure. Specialization is possible and necessary. Instructional groupings of almost any size and composition can be arranged.

Perhaps the greatest potential advantage of team teaching is that it furnishes an impetus to significant curriculum improvement. Only the most naive would expect major gains in curriculum and instruction to result automatically from a change in school organization.

Whatever pattern of organization we choose to adopt or continue, we must realize that the basic problems of instruction will remain to be solved, as will many problems of teacher preparation and competency, adequacy of budgets, and the like. Team teaching does not solve these problems, but it does invigorate teacher concern for them and offers an alternative approach to them.

The full merit of team teaching remains to be measured. It is clear now that several varieties of team teaching are feasible and that advantages once ascribed exclusively to the traditional patterns of organization are enjoyed at least equally by these patterns. All the evidence necessary for a final judgment may require many years of further research. Our obligation in the meanwhile is to maintain an open mind. •

Well-Rounded Teaching

THE college students were asked to comment on the course they had just completed. One student said, "It seems to be a well-rounded course. Everything not given in class during the semester was included in the final examination."
—From *The Texas Outlook*.

Exchange of Experts Stimulates Learning

Inter-Departmental Team Teaching in the High School

JULIUS MENACKER
In Chicago Schools Journal

IN recent years, there have been a number of experiments with a team-teaching approach to instruction taking place in the elementary schools. The experimental use of this plan has been sufficiently successful to cause many elementary schools to begin employing it on a small but growing scale. My own experience has shown that a modified form of team teaching is also both feasible and desirable in the high school.

High-school teachers are certified to teach in one subject area only. However, there is much overlapping of subject matter in the high-school curriculum. Although teachers in one area necessarily are familiar with the content of other areas, especially when those areas relate to their own subject, it would be unreasonable to expect them to be expert in those peripheral matters.

This set of circumstances—a curriculum with numerous areas of overlap and a faculty each one of whom is trained especially in one area only—suggests the application of the team-teaching idea in the high school.

As a social-studies teacher working with an economics class, I felt that the students were not getting a broad or deep enough perspective in certain aspects of the course. Not satisfied with my explanation of stocks and bonds, I called on a colleague in the business-education department to supplement my instruction. In discussing the basic elements of stocks and bonds, he presented the subject with a much different approach than I had used, and, as could be expected, with a greater degree of technical competence.

I found that my students not only learned the material much better but also demonstrated increased interest and motivation in the entire field of economics. I believe the chief reasons for this happy outcome were: the bringing of a fresh outlook to familiar material; the broadening and deepening of the students' base of understanding; and the competence with which this expert performed.

United States history is another example where a "team" approach

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has much to offer. In studying the period of nationalism, the history teacher can point out the influence of the writings of Thoreau, Emerson, Whitman, and others on the mainstream of American thought and society; but how much more enriching it would be to allow the students the experience of getting a glimpse of these men through the eyes of the teacher of literature. The net result for the student would be a greatly increased appreciation of United States history and the men who made it.

If the English teacher can be of aid to the history teacher, the reverse is also true. To an English class engaged in an examination of the "lost generation," the authors and their works would be more meaningful and alive if presented from the broad historical perspective supplied by the social-studies teacher.

The possibilities inherent in the close relationship of mathematics and science are so numerous that this combination stands out as a shining example of how inter-departmental team teaching can be used. The situation may well exist where the physics teacher, approaching a problem from the viewpoint of the scientist, would be unaware that certain mathematical intricacies have been passed over too quickly, or not explained enough for some students. A mathematics teacher, if brought in at a point where mathematical content is particularly heavy, could greatly help such students, due to his expert grasp of how to put across mathematical concepts to a class.

There are almost endless possibilities for the sharing of special knowledge between departments. Just a few of the additional possibilities are English and business education; history and science; history and the fine arts; and English and foreign languages.

Those interested in trying inter-departmental team teaching should seek occasions for the use of this technique with the following idea in mind. In addition to the added accuracy and depth of treatment which would be provided by an expert is the vitality of the new, fresh approach as a stimulus to student thinking and learning. Both increased accuracy and heightened stimulus *can* be expected.

There are some dangers that need pointing out. First, the use of inter-departmental teaching should not be overdone. It should be restricted to those few times during the semester when it would be of great advantage. This technique should also be kept as free as possible of formal administrative apparatus. The program should work on a flexible, informal basis whereby two teachers agree on a suitable time for presentation. The only administrative responsibility might be to see that classes are properly supervised in the absence of the regular teacher, and, even here, informal teacher arrangements can often prove the best course.

The Face of Africa Has Changed

New Schools for Africa

GEORGES FRADIER
In The Unesco Courier

THE nations of tropical Africa range from the old empire of Ethiopia to the smaller territories on the west coast which were carved out in the course of colonial partitions. They have striking social, industrial, and cultural differences depending on whether they were influenced by Europe or the Arab world. Yet despite all the differences, every one of these countries is today launched on an extraordinary undertaking—the provision of full education to hundreds of thousands of children whose fathers never so much as saw a school.

Never before has there been so rapid a development in the field of education. In 10 years the number of schools and pupils in certain regions has increased by 300 percent. At the end of the second world war it would have been hard to foresee that an independent republic called Ghana would have more than 600,000 pupils at school by 1960; or that there would be 130,000 school children in Senegal and Mali.

Fifteen years ago, eyebrows would have been raised at the suggestion that Addis Ababa would possess a great university college and that the equipment of the lecture rooms, libraries, and laboratories of the universities of Ibadan, Accra, Leopoldville, Fourah Bay, and Dakar would put that of some European cities to shame. These countries were forced to do without any universities at all up until a few years ago.

Georges Fradier is a roving correspondent for The Unesco Courier. *Reported from* The Unesco Courier, *(February 1961), 21–23, 27.*

Similarly, striking examples of educational development are to be found in other African countries. What is significant is that most of these schools were hardly dreamed of a generation ago. It is not a mere advance in education but an acceleration so dynamic that it is virtually a creation from the ground up.

This explains why African educational authorities are ready to discuss freely and optimistically the problem of the number of children still not attending school. In certain cases the figures are gigantic. In Ethiopia, Somalia, Mali, the Niger, and the Upper Volta, it is not yet possible to provide primary education for even a tenth of the school-age children. Schooling is available for fewer than three children in 10 in Sierra Leone, Liberia, Dahomey, and Tanganyika. Even those countries which, education-

ally speaking, are the richest and most favorably placed will have to take Seven-League-Boot strides to reach the goal of education for all children in any way comparable to that of Europe and America.

The largest cities of Africa compare favorably with equivalent cities elsewhere in terms of comfort, amenities, architecture, and transport. Generally speaking, there is no shortage of schools in these capitals, or rather there is a shortage only to the extent that the cities grow too fast; it is not easy to provide for the education of shantytown children.

A RURAL PEOPLE

Yet Africa remains and will continue to remain rural; the vast majority of its people will continue to live and work in innumerable villages which seem all the more scattered due to the scarcity of roads. Education is still impossible for most young Africans unless they are ready to travel great distances or quit their homes altogether—a solution which is accepted as a last resort for boys but rarely for girls. The situation is particularly serious in sparsely populated regions, and in vast areas where there are less than 12 inhabitants per square mile.

Underpopulation is disastrous in its effect on the development of an effective and complete network of schools. Educational authorities, however limited the funds available, are always ready to provide a school and teachers if asked to do so by a town with a population of 10,000, but they admit helplessness when asked to provide the same facilities for 50 villages of 200 inhabitants.

These 50 villages are not demanding that someone be sent at great expense to build schools. During the conference of education ministers and directors which was organized by Unesco at Addis Ababa in February 1960, the representative of Somalia declared: "Let us leave aside the building problem. If necessary, a tree is enough to prop a blackboard up and to provide a little shade. It is the teacher who makes the school, not the building. The real problem is the problem of teachers."

Today, the equipment, the machines, and the material are arriving much faster than the teachers. Already the lack of qualified teachers has created an alarming situation. Teachers are needed and it is to be hoped that all nations in a position to send teaching staff abroad will heed the appeal that the countries of Africa have made.

This help, however generous it may be, will not be enough. So long as independent Africa relies on outside aid, it will not obtain the complete educational system it needs and wants. Future bilateral or multilateral assistance would best be devoted primarily to the *training* of African secondary teachers for general and technical education.

In all of tropical Africa there was only one training college for

technical and vocational teachers as of January 1961. As to teachers of literature and science, they must come from the universities, which are only now beginning to provide the graduates needed for industry, hospitals, the big plantations, and the civil service.

It is urgent that teacher training be speeded up by every possible means if a very serious educational crisis is to be avoided.

There was full awareness of this situation when the ministers and directors of education of the countries of tropical Africa met at Addis Ababa last February. They made an urgent appeal to Unesco for help in the creation of regional teacher-training institutions.

Unesco has answered this appeal. Its program for 1961-1962 provides for the establishment of two regional centers which will train educators for future teacher-training colleges and also to carry out educational research. Furthermore, through the United Nations Special Fund, Unesco will be able to help in the development of secondary education. For example, in Nigeria it is proposed to establish a federal teacher-training college for secondary-school teachers, with the fund contributing $800,000 and Nigeria $1,800,000.

It is a gigantic task confronting the countries of tropical Africa. Many believe that, once the basic essentials are achieved, education will develop automatically and quickly with the smoothness of a well-oiled machine. The truth is that most of the countries are going to be at wit's end to provide teachers for the thousands of schools that need to be built.

Independence in Africa has seen the new countries buckle down to the problems of education without delay. The governments are perfectly aware that education, in the present circumstances of their national life, calls for the same effort and vigilance as social stability and economic prosperity and they do not hesitate to say so bluntly and often.

It may be trite and hackneyed to say that the future of each country depends on the education given the younger generation, but in Africa today it is being said with firm insistence. It would indeed be a pity if the states or organizations responsible for the aid offered to these countries were to think only in terms of industry, equipment, and finance and were to overlook the fact that there is no better investment than expenditure on behalf of education. •

IN Northern Nigeria it is estimated that there are about 20,000 blind children and only two schools for them. In the Katsina area alone there are about 1,000 blind children. This district has been chosen by the Royal Commonwealth Society for the Blind as the base for an experiment in teaching the blind in normal primary schools.

Some Typical Questions about

Teaching Machines

ROBERT C. SNIDER
In The Nation's Schools

THE present great interest in teaching machines and programed instruction is symbolic of at least three major forces acting on the schools of this country.

The first and most obvious force is the intense public interest in improving our schools. Viewed in another way, this force can be seen as a general dissatisfaction with the present state of American education. In this climate of concern over our schools, the idea of a "teaching machine" has generated much interest.

A second major force creating much interest in "machine solutions" to educational problems is our rapidly developing technology. The United States has attained a very high level of technology in nearly every area of human activity—with the possible exceptions of the railroads and the schools. A technological society with data processing devices, information retrieval systems, and automated factories can be expected to look with favor on the development of teaching machines and to provide leadership for their development and acceptance in the schools. This is happening.

A third force, not so obvious but far more awesome, is the pressure of our projections into the future. We know what is happening to our population and the seemingly impossible problems this alone poses for the schools in a few short years. Add to this the ever-increasing need for education in a society that is rapidly eliminating its market for unskilled workers. And to this must be added the fact that the sum of human knowledge (the staff of our curriculum) is increasing at such a rate that some authorities maintain that this sum will soon begin to double in something less than every decade.

Robert C. Snider is Assistant Executive Secretary of the Department of Audio-Visual Instruction, NEA, *Reported from* The Nation's Schools, *LXVII (February 1961)*, 70–73.

When these three forces are considered with only some of their dramatic implications for the future of education, there is little surprise that the idea of a "teaching machine" is attracting wide interest in America today.

Before proceeding to some typical questions that administrators and teachers are asking about auto-instruction, let us first agree on some terminology.

Teaching machines.—This term is in wide use, despite the fact that auto-instruction is a more accurate

term and one that is apt to meet with less semantic opposition. Basically the machine is a device for presenting to the individual student a *program* of material to be learned. The machines are designed for the individual student rather than for mass instruction and they require active response from the student. These are the characteristics that distinguish the teaching machines from the traditional form of audio-visual equipment.

Programed textbook.—The programed text presents in proper sequence the discrete steps, or questions, that make up the program. Although it has much in common with the machine, the programed text does not prevent the student from looking at the answer prior to answering the question, nor does it control other aspects of student behavior—activities that can be taken into account with machines. Some authorities maintain that this type of "cheating" has little effect on learning, especially at advanced educational levels.

Programed instruction.—The development of technics for the preparation of programed materials is an important research endeavor going on at the present time. There are special skills involved in preparing subject matter for programed instruction. Material must be broken down into small, discrete units and arranged in a sequence that facilitates learning. Materials are not now being produced in sufficient quantities to meet the teaching potential of machines now on the market.

Research consideration today is also being given to establishing standards, since today programs often are produced in a form that cannot be used in all existing machines.

THE TEACHER'S ROLE

Will teaching machines replace teachers? The motion picture projector and before that the printed book caused this same question to be raised. To date, nothing has replaced the skilled teacher, and when we seriously consider the present goals of education, the likelihood of a completely automated educational system seems foolhardy.

It does seem reasonable to predict that the role of the classroom teacher will change as more and more technological devices find acceptance. As for the pupil, he can expect a large measure of individual attention—some of it from electronic tutors—but more importantly, from teachers who will have the time to devote themselves more fully to the humanistic aspects of teaching while the mechanical aids perform the drudgery of endlessly imparting information.

Where can one acquire information on teaching machines? The most comprehensive work in print is *Teaching Machines and Programed Learning: A Source Book*, edited by A. A. Lumsdaine and Robert Glaser and published late in 1960 by the Department of

Audio-Visual Instruction, NEA. This volume brings together the major papers published since 1926 and contains a large collection of research abstracts. *Teaching Machines: An Annotated Bibliography* by Edward B. Fry and others, published a year ago as an 80-page supplement to the *A-V Communication Review*, contains more than 120 annotations and a listing of teaching machine manufacturers.

What should our schools be doing about teaching machines now? After becoming informed, the administrator and his staff may want to embark on an experimental program of their own. This can be inexpensive if commercially programed texts are used and the introductory steps are limited to using only a few machines with available programs. Costs will soar if the school attempts its own programing. At present, most authorities agree that use of teaching machines in schools should be only on an experimental basis.

What subjects lend themselves best to programing for teaching machines? In theory, any subject that can be verbalized can be programed. Such subjects as arithmetic, mathematics, and the sciences are easier to program since they must be taught in a readily identifiable sequence. Most available programs are in these subject areas.

At what grade level are teaching machines most effective? Lack of evidence at the present time delays answering this question. Most of the research and programing has been limited to college and adult levels. It is becoming obvious that a properly programed subject can be taught successfully at a lower age level. Also, some promising research has been done with preverbal machines.

Will teaching machines or programed textbooks dominate the future of auto-instruction in the schools? The question is premature, but it now seems that both methods of presenting programed instruction have unique advantages and disadvantages. The programed books are relatively inexpensive and in some cases can be reused; they do sacrifice some control over student behavior and the record of responses to the program is relatively meager. Many machine programs can be reused almost indefinitely. A case can be made for some machines on a cost basis alone although they do have other unique advantages. It is likely that "compromise machines," simple and inexpensive, will be available soon for further experimentation.

What effect will the current interest in auto-instruction have on the traditional textbook? Probably a great deal. The president of a large textbook publishing house recently commented that the machine has focused attention on the same sort of precision and reinforcement in independent learning that the selfteaching workbooks and textbooks have long been attempting with varying degrees of success.

A Baker's Dozen List of Suggestions

Guesses Don't Pay Off In School Elections

OTIS A. CROSBY

In Michigan Education Journal

CAN boards of education be satisfied with their public-relations efforts when figures show that 23 out of every 100 school bond and/or millage issues failed during the first six months of 1960? There was a slight improvement for the second half of 1960 (through November) but election results show that the percent of failures is still high —much too high.

This poses a serious question for administrators. Just what is being done to prevent failure and achieve a really high percent of voter approval? The seriousness of this dwells in the fact that schools must have more money.

The seriousness is further exposed in these questions: What are administrators doing to surmount the important business of insuring voter support at the polls? What do they know about the *how*, *when*, and *why* public apathy sets in? What do they know about what prompts a majority of negative votes and widespread opposition in the district?

Nothing less than a full knowledge of the science of mass persuasion will do the job. With democracy putting today's taxpayer squarely in the driver's seat, the school bond or millage ballot calls for a modern, dramatic, well-timed selling job on the part of school officials.

Facts show that a number of school administrators who experienced at least one financing campaign in 1960 have a serious shortage of technical knowledge required to obtain public support in a finance crisis at the polls. Some of the superintendents were asked this question: "If you were to be faced with another bond or millage election in the future, what would you be likely to do differently and, likewise, what would you probably do more of in planning and promoting your campaign?"

More than eight out of ten of the superintendents polled who had experienced voter approval of increased financial school finance measures replied, "We would promote our campaign just as we did the last one." This reply persists in spite of constantly changing conditions.

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Is this good administrative logic? Locally, school taxes have gone up as a result of the last vote. The cost of living has increased; work, especially for blue-collared persons, is on an unsteady calendar; national and world money standards are shaky; and news of defeated school bond issues influences negatively the minds of local voters. In the meantime, some of the old friends of the schools have left the district and their replacements are new citizens of unknown attitudes. Will methods used effectively in past campaigns be adequate when the next call is made for more school taxes? Does success in one instance assuredly mean success in another?

And for those school boards and administrators whose finance plebiscites failed, the story of strategy, of timing, and of general promotion techniques for the next campaign is even more complex—more of a serious gamble with real, deep-etched tragedy a possibility. Failure has a tendency to beget failure.

From election winners and losers alike there has been an uncritical, second-guessing type of analysis offered in explanation of vote results. This kind of thinking, all too common among school boards and school heads, points to a dead-end street.

Knowing (not guessing) the public's voting habits involves a great deal more than the simple words imply. Here is a baker's dozen of fertile observations, suggestions, and tried-and-proven aids for planning, promoting, and analyzing school finance campaigns. These aids have been selected from reports of superintendents and from a search of campaign studies completed in several cities throughout the nation.

SUGGESTIONS

1. There is widespread evidence that school bond and/or millage elections are not attracting an appreciable number of parents of school children. This spotlights the need for a year-round program of school interpretation, including something of shortcomings and needs.

2. Calendaring the election to avoid certain months when public tax resistance is high is important. Scheduling elections for months when the public is known to be more kindly disposed toward schools is logical. Research and experience alike point to specific aid in each area.

3. The appeal for additional financing may effectively be built around the curriculum and what is planned for all children. Benefits from the "new money" should extend to all parts of the district. It must be made evident to all voters.

4. Citizens' committees result in involving a lot of people, and that means schooling great numbers in the dramatic and the factual aspects.

5. Very careful consideration must be given to the "all-out" campaign as contrasted to the "selective-contact" approach. Facts based on opinion polling and other

evidence may suggest which is the better gamble in your district.

6. Face-to-face contacts by board members and school personnel is a preferred approach from the standpoint of "selling." A few key citizens grounded in the facts of the campaign are invariably effective, especially with the business and professional publics.

7. "What's being done for my child?" is the universal question for which there must be satisfying answers.

8. Avoid technicalities, professional jargon, and statistical talk. It won't be understood by most people. Attempts at repeating the story by friends to friends will but add to the confusion.

9. Campaign literature must be kept extremely simple. Emphasis may best be placed on benefits to be derived rather than the costs assessed.

10. *Intensive* work with certain "publics" has proved profitable in many school districts.

11. The time is fast approaching when this business of mass persuasion, of asking the public for more tax dollars, will demand professional counsel. In the meantime, a mastery of the fundamentals of salesmanship and applied psychology will help.

12. Several good books and brochures on organizing and promoting school finance campaigns are available for the professional library.

13. Second guessing in this day of sharp competition for the worker's dollar relegates opinion to the back burner to simmer. A *knowledge* of public understanding and misunderstanding, as well as public wants, calls for first-hand study (not guesses) on the part of superintendents. Such knowledge can be had only by face-to-face inquiry or through answers recorded in a printed questionnaire. Factual information of citizen knowledge and reaction obtained before the campaign is especially valuable. An analytical poll after the vote does much to analyze just what was effective or ineffective. It also breaks down into statistics just who voted. Opinion polling is a definite *must* if campaigns are to be planned and conducted on anything resembling a scientific basis. •

Income and Taxes

• There are several ways in which to apportion the family income, all of them unsatisfactory.—*Robert Benchley.*

• Every nation finds it difficult to balance a budget at the end of a sword.—From *Banking.*

• It's easy for the well-to-do to be thrifty; they already have the things the rest of us want.—*Corona Independent.*

• There are bigger things in life than money. For instance, bills.—From *Service for Company Publications.*

Does It Breed Spigots?

What's Wrong with the Advanced Placement Program?

JACK N. ARBOLINO

In The Bulletin of the National Association of Secondary School Principals

SINCE its inception, the Advanced Placement Program has been singled out and sung to, and part of my job for the past two years has been to do some of the singing—usually, I should add, as a small voice in a strong chorus. Maledictions have been few. Such diverse educational spokesman as Bowles, Conant, and Rickover have praised it. Perhaps most important of all, school and college teachers and administrators all over the country have not only endorsed it and become volunteer workers for the cause, but they have manifestly appropriated to themselves a private sense of responsibility for its welfare. I know no higher praise.

Is it really worth such high marks? Is it, as the president of Brown University described it, "the most promising thing that has happened in American education in years"? If it is, it can stand a harshly critical look. Here are the charges against it:

A. It is undemocratic, a money-making scheme of the College Board, a subversive attempt by the colleges to re-establish dictatorial practices.

B. It is used by schools and colleges to *look* rather than to *be* good.

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C. It accents credit and, by overemphasizing testmanship, may lead to the breeding of a new race of spigots.

D. It limits the growth of the curriculum, unduly influences it, and restricts experimentation.

E. Identification of the superior student is difficult at best; early identification is dangerous.

May I be forgiven for trying to deal with all these charges—the few false and unimportant and the remainder valid and serious—at one time? Those listed under B, C, D, and E have validity; those in A have none and the latter will do for a start.

Advanced Placement is, in a sense, a program for the elite, but it is hardly undemocratic. There is varied and abundant testimony that establishment of Advanced Placement in a school raises the standards throughout that school and that, by radiating out and down,

Advanced Placement benefits all classes.

The President's Science Advisory Committee has stated: "In a democracy, we should provide each individual with the opportunity to develop his own talents to the fullest. It would be difficult to think of anything less democratic than a system that sacrifices in any way the stimulation of the bright student, either to learn more or progress faster through the prescribed work." Perhaps the most succinct expression of this point of view is: "There is nothing so unequal as the equal treatment of unequals."

LOSES MONEY

The matter of making money is easily put to rest. The Program lost $150,000 last year; it will lose about $200,000 this year. The College Board supports it with the hope that, through candidate volume and continued economies and improvements, we may reach a break-even point in the future.

To complete the false and easily refuted charges, it should be made clear that the schools are running the show. Schools do the work and the colleges benefit. It is true that certain colleges have shown leadership, but this has consisted largely in their accepting one basic premise of the Program: College work completed in school deserves college credit. In large measure, the colleges have been the reluctant partner. Rather than dictating, they have served.

The valid charges begin with B. If a comprehensive school is judged *only* by the number of candidates it prepares for Advanced Placement examinations, if other students and other courses are neglected, if in the quest for reputation a school pursues knowledge by description rather than by acquaintance, performance will be sacrificed to appearance. It is true that the Program provides a way to look good as well as a way to be good.

The college that jumps on the bandwagon of Advanced Placement without truly participating and understanding it is serving neither itself nor the Program. The school that offers Advanced Placement courses and then, to rack up scores, dissuades those students of whom it is not sure from taking the examinations, subverts the ideal. One argument, then, that can be made is that, because it brings prestige, the Program lends itself to exploitation to those who seek reputation.

As for the C charges—credit, testmanship, and intellectual spigots—they are serious. I know no way to eliminate the bugaboo of credit. Academic bookkeeping is an integral part of American education. While this system lasts, the program must conform. Study *is* its own reward, but we must deal in common currency.

To guard against spigotry, the examining committees take great pains. Course descriptions are general, and each year the examinations are changed. Nevertheless,

the examination grade is the most important factor in the eyes of the colleges. Again, as in the case of credit, the Program falls heir to the ills as well as to the attributes of our national system. In our over-all educational system, we count. We pay off on grades, and so does the Advanced Placement Program.

The D charges—the constricting influences on the curriculum—seem to me the most serious problems the Program engenders. Although the traditional subjects in which Advanced Placement operates are varied and balanced, as the program grows there may be a tendency for participating schools to hew too closely to the line. In addition, the substantial experimentation that is going on in physics, mathematics, and other subjects may be inhibited by the Program. Because of the prestige the Program brings, it is unlikely that a successfully participating school would be eager to embark on new courses or new ways of teaching old courses.

It must be noted that the Advanced Placement Committee is aware of the influence that the Program may exert and it is fearful lest, worthy and important as it is, the Program fix curriculum. To this end the book, *Advanced Placement Program: Course Descriptions* carries paragraphs stating clearly an awareness of the diverse nature of the American secondary-school curriculum and states specifically that the Program is not designed to remain static.

The last serious charge, E, concerns selection. We must never close doors on our young people. We must select, we must try to identify the superior student early, but we must always be ready to say we were wrong. Gumption Quotient is at least as important as Intelligence Quotient.

A program like Advanced Placement is greatly dependent for success on the caliber of the guidance counselor. He must sift, study, and constantly assess his over- and under-achievers, his late bloomers and early faders, the rebels, the flashes, the strong, the quiet, and the main-chance hustlers. The apalling isolation of the elite, which is too frequently a hallmark of European education, must not be allowed to occur in the American high school. On the other hand, pedagogical sentimentality must not dissuade us from trying to identify our best students.

It seems to me that the charges discussed above constitute the bulk of the criticism that has been directed at the Program. It is still worth high marks. It continues to encourage schools and colleges to work together, it tends to eliminate waste of time and duplication of studies, and, perhaps most important, it stimulates students and teachers to higher achievement. Naturally, there are problems. Nevertheless, the Advanced Placement Program provides a way to strengthen American education. And the evidence shows that it is working. •

1961

"That Eternal Rarity, a Great Individual"

William James' Impact on American Education

HAROLD A. LARRABEE
In School and Society

LAST year marked the 50th anniversary of the death of William James (1842-1910). His influence on American education, though overshadowed by that of John Dewey, was greater than many have supposed.

It was an influence exerted not directly through specific writings on educational subjects, but rather through the impact of a vibrant and liberating personality making itself felt in many areas of American life. It was James' pioneering example which, more than any other single factor, helped "to make the world safe" for the pragmatic reformers succeeding him.

Today it has become fashionable to disparage James as the outmoded champion of romantic individualism and buoyant optimism in dealing with the concrete issues of daily living. He never hesitated to tackle the *Lebensphilosophie* (philosophy of life) or to make his teachings available in popular as well as academic form. When he spoke or wrote, it always was with such vital warmth that he had many thousands of listeners and readers outside college and university circles. In the often-quoted words of the late President Lowell of Harvard, "Philosophy is no good unless it is hot. James always made it hot."

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In all things educational, James was the enemy of convention and formalism. The gifted James had little patience with the cut-and-dried methods of instruction. "Results," he once wrote, "should not be too voluntarily aimed at or too busily thought of."

It was John Dewey who connected James' remarkable versatility and profound interest in all things human with "the nonacademic character of his education," which enabled him to "escape the academic conditions that too often have a benumbing effect." Dewey attributed the latter to "our tendency to exaggerate the phase of technique, of formal skill, in quasi-prescribed lines of thinking."

As is well known, James' childhood tutelage by "educative ladies" was followed by an everchanging series of tutors and private schools as the nomadic, well-endowed Jameses traveled from New York to London, Paris, Boulogne-sur-mer, Geneva, and Bonn. The greatest educative influence of all, of

course, was the animated family circle presided over by Henry James the elder, whose ample inheritance and domestic tastes enabled him to devote himself to the upbringing of his five children.

Confronting the question of going to college, the 16-year-old youth wrote to Edgar Van Winkle, then a student at Union College (from which the elder Henry James had been graduated in 1830), "When I left you in Schenectady, it was with the almost certainty of becoming a fellow man with you at Union College. When I spoke to my father about it, I found he was not in favor of my going to any college whatsoever. He says colleges are hot beds of corruption where it's impossible to learn anything."

This paternal opposition to institutionalism in any form was sufficiently relaxed three years later to enable William to enter the new Lawrence Scientific School at Harvard and later the medical school, where he received his only "earned" degree.

Later in life, James' detestation of "academicism" displayed itself in his enthusiastic hospitality toward unorthodox educators such as Thomas Davidson and a whole succession of mavericks known as "James' cranks." But the strongest blow which he struck against what he called "the Mandarin disease" was his famous essay, "The Ph.D. Octopus," in which he denounced the possible coming about of a state of things "in which no man of science or letters will be accounted respectable unless some kind of badge or diploma is stamped on him, and in which bare personality will be a mark of outcast estate."

At the same time that James was throwing down his challenges to formalism in education, he was engaged in erecting a new science of psychology that was to have profound effects on education.

Before James, American psychology had been a branch of philosophy, largely speculative in character, called "Philosophy of Mind." The publication of *Principles of Psychology* in 1890 changed all that by placing the science "foursquare on a physiological foundation."

The frank empiricism of the book came as a shock and as a revelation: Here was "raw, unverbalized life" regarded as "more of a revealer" of truth than "*logos* or discursive thought." It was a radically motor psychology; its base was biological. But James was not engaged in reducing psychology to biology; his concern was with the whole living, acting man. In scintillating style, he portrayed "the universe with the lid off," a baffling mixture of the stable and the unstable, the recurrent and the novel, and the rational and the irrational, all "lending poignancy to existence" and giving it "the zest, the tingle, the excitement of reality."

Two years after the "Principles" appeared, James was asked to give

"a few public lectures on psychology to the Cambridge teachers," later published as *Talks to Teachers*. He warned, "Psychology is not something from which you can deduce definite programs and schemes and methods of instruction for immediate classroom use. Psychology is a science and teaching is an art, and sciences never generate arts directly of themselves. An intermediary inventive mind must make the application by using its originality . . . To know psychology is absolutely no guarantee that we shall be good teachers."

EXTOLS EXCELLENCE

As a Harvard professor, James made many pronouncements concerning the aims of higher education. Pragmatism so often has been criticized for neglecting excellence that some may be surprised to discover that James regarded "a sense for human superiority" as the very mark of the educated man. Higher education, he said, should "set up in us a lasting relish for the better kind of man, a loss of appetite for mediocrities, and a disgust for cheap jacks."

In these days, with punch-cards and computers finding favor with some educational administrators, it may be well to recall James' passionate combination of individualism and pluralism together with his deep antipathy to the sociologist's preoccupation with averages, "with its obligatory undervaluing of individual differences," which he held to be "the most pernicious and immoral of fatalisms." Long before beatniks appeared, James diagnosed the creeping paralysis of will that was causing "an irremediable flatness to come over the world," and sought to counteract it by drawing on fresh sources of energy and moral courage. As a militant liberal, he fought against imperialism and war long before such causes were popular.

It was this attitude of eagerness in confronting a changing, challenging world full of risk and adventure which was James' greatest gift to American education, for it altered the orientation of philosophy from past to future, "from abstractions and insufficiency, from verbal solutions . . . fixed principles, closed systems, and pretended absolutes and origins . . . towards concreteness and adequacy, towards facts, towards action, and towards power." In education, this meant turning away from tradition and theory toward practice and experiment. This found a ready response in a people who had shown a long-standing propensity for getting along without theory until after some scheme of theirs had proved to work.

James summoned his fellow men not only to participation in the conflicts of his own time, but to the endless struggle against ignorance, vulgarity, bigness, pedantry, and moral apathy and inertia. Above all, James set us an example of "that eternal rarity, a great individual." •

What Are the Limitations?

Problem Solving as a Teaching Method

HENRY J. HERMANOWICZ

In Educational Leadership

MANY curriculum theories for elementary as well as secondary education exemplify a primacy of method within the proposed school program. This method usually consists of some form of problem solving procedure as the basis for teaching-learning activities.

The following paragraphs will briefly describe the source of problem solving as a teaching method, explore some of the significant contributions of this method, and raise some questions concerning the applications or limitations of this method in organizing learning activities throughout the curriculum.

In the book, *How We Think*, John Dewey wrote that learning is learning to think. Recognizing the existence of many ways of thinking, Dewey insisted, "The better way of thinking is reflective thinking."

This reflective thinking, according to Dewey, involved a process of translation "from a situation in which there is experienced obscurity, doubt, conflict, disturbance of some sort into a situation that is clear, coherent, settled, harmonious."

Dewey made a logical analysis of this concept of reflective thought by describing five phases that he considered essential functions of this particular mental process. It is difficult to understand whether Dewey intended his logical analysis of reflective thought to become the Titan of method that exists in many curriculum proposals today. However, he did write in *Democracy and Education*: "While we may speak, without error, of the method of thought, the important thing is that thinking is the method of an educational experience. The essentials of method are therefore identical with the essentials of reflection."

Dewey's writings opened the door to a variety of interpretations related to problem solving as a teaching method. Subsequent developments in cognitive learning theory seemed to add support to the refinement and application of this method. Perhaps it was inevitable that educators would try to derive new teaching techniques

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by their inferences from Dewey's philosophy and from Gestalt psychology.

Among the more distinguished and influential interpreters of Dewey was William H. Kilpatrick. With combined intellectual and emotive appeal, Kilpatrick's ideas concerning "The Good Life" and "The Project Method" excited the imagination of many educators. In a sense, Kilpatrick was providing a do-it-yourself kit for teachers ready to react against stagnant teaching methods then existing.

Dewey's phases of reflective thought have manifested themselves in many other educational proposals. Alberty transformed these phases of reflective thought into a type of group problem solving which he considers "the emerging concept of general method" in education. Klausmeier, Dresden, Davis, and Wittich outline a general pattern of teacher-pupil planning for the elementary school which is similar to Dewey's concept of reflection. The implication behind these proposals appears to be that all learning evolves from the method of problem solving.

Undoubtedly, the applications of Dewey's problem-solving method did much to revitalize the nation's classrooms. Even in its most stylized form, it was an improvement on the assign-study-recite classroom techniques. The new methodology also gave educators some hope for helping children learn to deal with a variety of problems and situations as an important part of their education in a rapidly changing culture.

RAISES QUESTIONS

Without attempting to negate these important contributions to education, perhaps some questions should be raised concerning the omnipotence of the problem-solving method. Should all learning depend on a student's exposure to problematical situations? Does all learning involve conscious inquiry? Assuming that the better kind of thought process involves elements in Dewey's concept of reflective thought, should these elements be translated into a general teaching method? What limitations would the use of a general problem-solving method as "the" teaching program impose on learners?

There is some experimental evidence which seems to indicate that it is possible for negative learnings to result when students learn to follow one procedure to solve a variety of problems. This possibility represents a serious indictment against transforming Dewey's phases of reflective thought into a teaching method even on a general level. Curriculum literature often displays this supportive evidence creating unequivocally positive impressions of a problem-solving teaching procedure. It seems desirable to be cognizant of the negative aspects.

A study by A. S. Luchins indicated that students taught to follow a particular method or procedure were actually being taught

not to think in their problem solving. Students in the experiment usually applied the same procedure when given a different type of problem. Furthermore, giving these students instructions to generalize a method of solution had a tendency to increase their "set" or inflexibility toward attacking and solving problems.

An experiment by Harold M. Schroeder and Julian B. Rotter demonstrated that students who worked on a variety of problems where no single attack was successful learned to be flexible, while students who had continued success with one method used it rigidly even where it was incorrect.

To think of problem solving as a general method may be a mistake insofar as the learners are concerned. In an article summarizing recent research on problem solving as classroom teaching method, R. E. Gross and F. J. McDonald state: "When the focus of interest in investigation has been on the general methodology of the problem solver, it has been consistently found that the subjects tend to use a variety of general methodologies."

In view of the foregoing, it may be unwise to consider all learnings as a form of problem solving in organizing content or potential learning experiences in the curriculum. It is this writer's belief that a significant function of a school program should be to help students learn to deal with a wide variety of important problems. However, it is questionable to assume that the total curriculum should be organized around problematic situations or as problems to be solved.

In addition, the function of problem solving in the school program might not best be implemented in terms of "a" teaching method. Despite the apparent built-in flexibility of "the problem-solving method" as classroom technique, it has dangers of being an orthodox procedure in itself.

A wide variety of teaching methods should be employed to help students develop their own abilities in decision making. The teacher's role is to help students seek relevant knowledge, understand important values, analyze possible alternatives, and project probable consequences involved in dealing with different problems. This will foster the type of critical thinking that was Dewey's original goal in emphasizing the development of reflective thought.

The trouble with using Dewey's problem solving as a step-by-step teaching method is that the application of the method can defeat the purpose for having students deal with problems. The gradual passing of the recitation as "the" method in educational practice should not result in another orthodoxy as a replacement. The mechanized application of problem solving as a teaching method can become a thought inhibiting rather than a thought provoking device; whereas, problem solving should help develop originality and diversity in student thinking. •

A Vantage Point for the Future

Forty Years of Change in the Elementary School

MARK MURFIN

In The National Elementary Principal

"FORTY years" holds a different meaning for each of us, depending on our vantage point. Perhaps the great majority of today's elementary-school administrators were pupils in a classroom in 1921. To some younger principals, 1921 is beyond memory and must truly be regarded as "ancient history."

Each must recall 40 years ago in the elementary school in light of his own experience and perspective. In retrospect, we must concede the unreliability of memory, but we may also rationalize that the intervening years have brought important changes and significant improvements—both in the schools and in society as a whole.

In broad terms, the major changes in the elementary school during the past four decades have developed in a setting of great social and economic change. Always a bit conservative, American schools have often lagged behind society, but they have been influenced significantly by violent social and economic changes. The automobile, a mobile population, high standards of material living, working mothers, television, and increased leisure are illustrative of new ingredients in the complex social recipe for rearing children. Industrialization, urbanization, and a growing population have been significant in elementary-school reorganization and administration.

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In surveying the changes, it is impossible to distinguish cause from effect. The elementary school is interwoven in the "warp and woof" of American life.

Changes in the school's physical plant and equipment are evident from observation. The Rip Van Winkle school administrator of 1921 would marvel at the increased size of school buildings and the space for work and play. He would not recognize his office suite with banks of filing cabinets, a teacher's lounge, public-address system, and secretary, for these were nonexistent in most schools of an earlier day.

Improved transportation, urbanization, and a multiplied school population, coupled with economic prosperity, set the stage for new school plant construction. The

principle that learning is affected by one's attitude toward learning and the atmosphere in which it takes place now extends to school construction. Design, furniture, equipment, and color reflect the experience and research related to children. Austere, institutional buildings are being replaced by attractive, functional plants.

Important innovations in plant construction are evident, but one must follow children into the classroom and see them at work to discern other fundamental changes.

Children and human nature have changed very little during the last 40 years. Yet everywhere we see new interpretations and applications of the psychology of learning. Remembering to caution ourselves not to assume that all schools or all teachers have accepted and practice these ideas, and recognizing the educational lag and the wide diversity in classroom procedures, let us list some general trends in the classroom.

CHANGING CONCEPTS

Conceptions of the educative process and of the teacher's tasks have changed. Recognition that children learn and are not "taught" in the usual meaning of the word has altered classroom procedures. Development of this concept to the point of understanding that learning is an individual matter has shaken the foundations of the traditional mass-instruction, textbook, skill-drill, memorization - of - facts elementary school.

There is no conflict between the modern school and the necessity for children to be well informed, to gain much knowledge, and to have skills. The change in emphasis is towards recognizing that attainment of these objectives is individual and that learning is best achieved, whenever possible, through problem solving, use of children's interest, and actual situations in which knowledge is functional. Real learning is a process of changing behavior.

Acceptance of these viewpoints about learning has altered the pattern of teacher-pupil relationships and the teacher's role in instruction. The importance of understanding individual children to provide better educational opportunities for them has captured the thinking of modern teachers.

The need to know children better and determine reasonable objectives for them has fostered a multitude of tests. Schools use standardized tests, record the results, analyze the data, and apply the findings in guiding children to an extent undreamed of 40 years ago. The measurement of capability, achievement, interest, attitude, preference, and proneness are illustrative of the fields which have been pursued.

Perhaps most of all, tests have helped teachers and principals understand the tremendous complexity and interrelatedness of the many factors which affect children's learning and classroom performance. School administrators

have matured beyond the early dream that testing and scientific inquiry would solve the problems of educating young children. This was, of course, an oversimplification and a misinterpretation of the virtues of the scientific movement.

GRADUAL CHANGE

Creating a classroom environment compatible with the premise of individuality has brought the "new look" to elementary schools. Change has been glacial in slowness rather than revolutionary, but change has taken place in all American classrooms and is discernible in varying degrees. Some identifiable practices which widen the 1921 school and the school of 1961 are:

Use of increased amounts and kinds of instructional materials of multilevel difficulty.

Acceptance of the wide spread in achievement found in a class as normal; and provision for this range through grouping, enrichment, and acceleration.

Provision for individual differences through a variety of purposeful activities based on units, problem solving, and research.

Use of multiple approaches or methods to aid children who learn in different ways.

Identification of and provision for groups of children such as the gifted and the retarded.

Use of specialists, resource personnel, and supervisory consultants to meet the needs of exceptional children.

Emphasis on a warm, friendly classroom atmosphere where the teacher, no less of a scholar, has assumed a democratic leadership role in guiding children in planning, searching, testing, and evaluating.

By noting curriculum practices, other demarcations are evident. Early in this 40-year period, science instruction took its place in the elementary school and currently foreign languages have gained a foothold. Subject areas have been unified and correlated to aid and reinforce learning.

Critical thinking and problem solving, particularly in science and social studies, have moved the research techniques into the elementary schools. The so-called "tools of learning" are now used in the immediate quest for knowledge, consistent with the child's development, rather than as tools to be mastered for some possible future use.

Use of the local community, its problems and resources, has brought more reality into the classroom and contributes to community betterment.

Classroom teachers participate to a greater degree in planning curriculum, production of teaching materials, and in evaluating school programs.

Finally, the battle between the Progressives, who sometimes argued that we teach children, and the Essentialists, who held high the banner of content or subject matter, has reached a stalemate.

The wall between these extremists has become the main highway for the "middle-of-the-road" schools of today.

More than 30 million children are attending elementary schools in America in 1961. This phenomenal increase in numbers has taxed the ingenuity of administrators and the pocketbooks of taxpayers to provide classrooms and to organize classes for quality instruction.

The over-all picture in respect to both school organization and classroom procedures has been one of development and improvement. But it must be noted that within individual states, and even within individual school systems, there is considerable variation in practice. Some classrooms have not yet reached the professional level of the best known and tested procedures of 1921! Every practice from the best to the poorest that has been popular in the last century may be found somewhere today.

While it is pleasant to reminisce and review our accomplishments, this is only important as these past events foreshadow the education which must be provided for children. What will the future be in terms of long-range goals for elementary schools? Three basic major problems confront and challenge principals today.

First, citizens must be well informed, but the accumulation of knowledge has become so great that it is possible to master only a fractional part. How can we select curriculum content to turn out educated world citizens?

Second, how can we work to strengthen the home-school partnership in a society and an economy which shakes the foundations of our families? Will the school continue to assume more responsibilities of the home? In the long run, do we strengthen the family or the school by programs of feeding, recreation, and child care?

Third, the individual child must remain the center of all educational endeavor. How can a small child keep his identity and find a warm, friendly school environment in an overpopulated school, or in auditorium classes with mass-media instruction? How can technology be used to aid the individual rather than to threaten or destroy his individuality?

If we could view the future in a crystal ball, the principal's work would be much easier. That is not possible. But we do know that the next 40 years will bring accelerating change far beyond the scope of the years from 1921 to 1961. The past and the present give us our vantage point for the challenge of the persistent future.•

SOME folks entertain a new thought as if it were an unwelcome relative.—*Morris Bender.*

1961

Is the System Wrong?

Why Did He Quit Teaching?

WILLIAM BARTRAM
In Ohio Schools

MR. John Smith has quit teaching. By consensus of his colleagues, students, and superiors he was one of the best teachers ever to enter the public education system. Why did he quit? He quit for the same reason I am tempted to quit and for the same reason many teachers with vision, courage, and creativity are tempted to quit.

I used to say that a good teacher never left the profession, that a good teacher was a dedicated one and stayed despite the many problems that confronted him. Now I am afraid that only good teachers leave. This profession is unique because it is the only one in which action cannot be taken to solve the problems that beset it.

We are stuck in a mess of triviality, *caput mortum;* we are plagued by a lack of grit; we are defeated before battle by the prevalent attitude of isolationism; we are blinded by masks of pedagogical clichés. And I think I can substantiate each of these accusations.

When teachers congregate to exchange concepts, a great majority begin to exchange insignificant details about their classroom procedure. "How can we improve English instruction?" a thinker might ask, and the pedagog replies, "I find that putting sentences on the board and having my students read them aloud helps a great deal."

"But I find a more varied and rich experience occurs for my students," another nonthinker counters, "when they write the sentences on the board themselves." And so the whole discussion degenerates to a give and take of selfassertion and justification.

The lack of grit? Just try to get a group of teachers to do something new. Or try to get them to make a protest which might jeopardize their jobs.

What does a teacher at an open-house say to a parent who asks, "How is my child doing?" Has any teacher anywhere in any school ever been honest and said, "Lousy"? It's even funnier to watch those teachers getting parent's cigarette smoke in their faces when they're dying to smoke themselves. Teachers!

Every committee report and every class group activity belies the fact that teachers are the worst isolationists in the human race. When school starts in the morning,

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the shutting doors symbolize the minds closing. Teachers will never know what's going on next door and, what's worse, they don't much care. I, as an English teacher, get icy stares when I take my "free" period to visit the shop or gym or Spanish class. The students can't imagine an English teacher having other interests, nor can they imagine any kind of relationship between the various programs of instruction.

Are the administrators to be blamed? I think not! Mr. John Smith was the only teacher I ever heard flatly refuse a work load. Most teachers just let them pile it on, then go home and mumble to their spouses and burn supper.

If I were an administrator with a teacher who would teach all day long if assigned to it, I would make the assignment. There are some teachers who would teach all day inside a barrel at the city dump. Love of teaching? I doubt it. If a teacher really loves teaching, he must admit that he can't teach every period of the day and do a decent job. And if he can't do a decent job, he's cheating everyone.

It is time teachers came to realize that demands made to lessen work load are not engendered of selfindulgence, but stem from a desire to improve performance.

I said that we are blinded by masks of pedagogical clichés. I suppose there is an inadequacy to language. But it is not a language inadequacy when the words hide a thought inadequacy. Lack of leadership is hazed over with "group dynamics." Stupidity lurks behind "socioeconomic background." Making smart kids work harder is cloaked with "providing for individual differences." A questionnaire becomes an "evaluative technique," and teaching from the desk top is dignified with "lecture-discussion."

I haven't begun to cover all the folly of my chosen profession. I get even more disgusted with teachers and teaching when I encounter the selfrighteous academic teacher griping because there is "overemphasis on athletics."

Why can't the classroom be as interesting a place as the practice field? Why do people have the idea that a good English classroom is 38 little desks and one big one while the home-economics department looks like paradise and the coach has an office? Why can you get to know a boy better in 10 minutes on the football field than you can all year in English class? Are the coaches wrong? No. They are right. It is the teachers who are wrong.

Am I writing a condemnation of all teachers and all educational systems? *All* generalizations are unjust. But when a man like Mr. John Smith and many more like him are driven out of a profession that needed them, when the children who were profiting from their wisdom and talents are deprived of those assets, then the system and the people in the system are wrong. •

1961

Improving the Quality of Communication

A Direct Line to Johnny's School

GEORGE M. KAISER

In The PTA Magazine

THE teacher-parent conference is fast becoming an American institution, almost on a par with the hot dog.

At the conference, parent and teacher get acquainted. Information and observations are swapped, with the hope that the result will be a better understanding of what makes a particular child tick. Some school systems have expanded their programs to provide two or three scheduled conferences a year for parents who want them.

In addition to the teacher-parent conference, we find numerous ways of keeping parents informed about what is taking place in school. There are visits to classes, go-to-school nights, special assemblies, P.T.A. meetings, and bulletins and newsletters. There are many lines of communication to the school for the parent willing to take advantage of them.

When all goes well with Johnny, the ordinary schedule of communication seems adequate. But what about the extraordinary situation that seems to demand immediate attention? School officials and parents agree that there are times when communication can't wait, when it is essential that it take place *now*. Why, then, do school officials often complain about being pressured for immediate conferences? Why do some parents speak bitterly of uncooperative principals and teachers who put them off and don't take their problems seriously?

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Let's see if there are some guiding principles that might help parents and teachers to identify major problems, which cannot wait, and minor ones, which can.

In instances where children are harming other children or are endangering themselves, the teacher or principal has to make a judgment. Should parents be informed? Is the offense an isolated instance of childish misbehavior, something that won't happen again if the child is reproved or warned? Or is it something more serious, something parents ought to help with or handle? If it is the latter, the school should inform the parents and enlist their cooperation at once.

Now, another kind of problem. A child is known to be lying consistently to her teachers, another has been cheating on tests and copying other children's work, and

yet another is stealing money and belongings from lockers. These are delinquent tendencies, symptoms of emotional disturbance, signals that something serious may be wrong. Although such things are unpleasant to hear about, parents will want to be informed at once so that the youngsters can be helped.

Poor academic work is still another type of problem on which there is uncertainty as to just *when* parents should be called. Many schools, believing in "sooner" rather than "later," use special forms to alert parents to poor scholarship before report cards are due.

Although the learning process is the school's primary business, there are wide differences of opinion among educators regarding when and how to communicate with parents about poor school work between the regularly scheduled conference and report-card periods. In this matter parents have been critical of teachers and have accused schools (sometimes justifiably) of not informing them soon enough.

Now let's reverse the coin and look at the parent's side. Certainly one of the major reasons for parents' calls to the school is Johnny's poor academic work. Every report-card day produces a deluge of calls. It seems that between report-card periods Johnny has been saying, "We don't have any homework tonight. We did it at school." Sometimes parents call the school to find out how much fact or fiction lies behind Johnny's statement. Sometimes they wait for the report. In short, there is a good deal of anxiety, well-grounded or not, about Johnny's progress. The result is an inquiry from home to school.

Another area that stimulates telephone calls from parents is Johnny's social problems. Since educators emphasize the concept of the total child, taking into account his intellectual, physical, social, and emotional qualities and characteristics, isn't it logical for parents to ask the school's help on social problems?

NO SIMPLE ANSWER

The answer is not simple. The school staff *is* interested in all aspects of Johnny's life, but it is far from understanding their complex interrelationships and arriving at a meaningful whole picture. The answer is not simple because the problem is not simple. Take, for example, a youngster who is rejected by all his classmates. If anyone had a facile solution to this problem, it would have been patented long ago. The school doesn't shrug it off. Professionals in several specialist areas struggle year after year with this and similar problems. In the past, struggling might have been considered enough. But since the school (willingly or unwillingly) has taken over many functions formerly belonging to the home, parents have come to expect answers from professionals connected with the schools.

But schools don't have all

the answers. Some professionals, through their own naivete and parental pressure, are seduced into attempting off-the-cuff answers. But it is my impression that school professionals are gradually feeling less guilty about gaps in their knowledge and their insight into human behavior. Educators could well afford to be freer with their "I don't know" answers. Parents will learn to accept this response in the same spirit as they do when it comes from the family doctor. Actually it can be a refreshing starting point from which parents and teacher or counselor can work together on a specific problem, academic or social.

Now suppose there is an emergency that warrants a telephone call from parent to teacher. Should the parent call the teacher at home? In some places this is the regular procedure. Teachers sometimes invite parents to telephone during evening hours. Under these circumstances there can be no quarrel with parents who phone at night.

But many teachers prefer to make and take their telephone calls during the day. Parents should be informed of this preference, and if they are tempted to call in the evening, they should evaluate carefully the necessity for doing so. True emergencies are rare, and most problems will keep overnight without disastrous results.

Just as it isn't always Teacher at one end of the line, so it isn't always Mother at the other end. Father surely has a role in home-school communications, but what should it be? Teachers who bring fathers into the conferences—usually in the evenings or on Saturdays—report, almost without exception, more satisfactory results than when they confer with mothers alone. Yet usually Mother does come alone. She takes from the conference what seems to her important information and relays bits of it to Father, often at times when he is not in the mood to hear what Johnny's teacher had to say. We are overdue for a reevaluation of Father's role in the educative process. In this reevaluation fathers should surely be asked to participate.

While there are many techniques for increasing the *quantity* of home-school communication, it is the *quality* of our communication that needs investigation and improvement. How significant, we might ask, are conferences if fathers are rarely involved? What is so sacred about providing equal time for each teacher-parent conference? Isn't it true that some problems require more time to discuss than others?

It is for parents, teachers, and administrators in each school to decide whether these and other questions relating to home-school communication warrant the time and energy invested in finding solutions. What is needed is not necessarily more communication but more meaningful communication. •

Subject to Stress

Let's Give the Teacher's Child a Break

KENNETH M. FRISBIE

In

The Elementary School Journal

THIRTY years ago few teachers had children of their own in the public schools. When women teachers married, they were fired. And 30 years ago public schools had few men teachers.

Today the situation is reversed. Young women preparing to teach also expect to marry and the number of men entering the public schools as teachers is increasing rapidly. One result of this development is that there are more and more children with teaching parents attending our public schools. It is quite clear that the special problems of the teacher's child and the teacher who has children in public schools are significant factors in the personal relations of the school community.

Though the situation has changed a great deal in the past 30 years, the special problems that beset the teacher's child and the teacher-parent are not new. These problems have been with us since public schools first opened their doors.

Let's begin with the child's side of the problem. He is subject to stress in three areas: relations with his peers, relations with his teachers and the administrative staff, and relations with his teacher-parent.

In the peer group, the teacher's child has needs common to all children. He needs acceptance by peers; he needs friendships; and he needs to share common emotions, aspirations, and behavior patterns. He needs to feel and express loyalty to his group.

All these needs are hard to satisfy for the teacher's child. Acceptance is particularly hard to win. His peers may not trust him, presuming that because his parents are teachers he has an alliance with, and an allegiance to, the standards and mores of the adult world. This presumption is strengthened by the fact that usually he does reflect family tastes and values that are somewhat different from those of his playmates. These become clear-cut signals that label him "teacher's kid."

Differences show up in vocabulary, in reading tastes, topics of casual conversation, and choices in leisure-time activities. All these

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signs of being different are clearly identified with his parentage, and they obstruct peer acceptance.

The frustrations in the situation set up a condition of emotional stress. Just as all normal people react to emotional stress by taking action to alter the situation and relieve the stress, so does the teacher's child. He may alter his natural vocabulary and adopt the vernacular of the playground. To be thoroughly convincing he may ape the extremist—even to using profanity. Often he adopts the behavior of an antisocial group. Or occasionally he becomes a crusader against real or fancied administrative justice. He will do almost anything to identify himself with the peer group.

These are cleansing mechanisms by which the child tries to remove the stigmas. But all too often the child's efforts to establish himself as one of the group are not successful. Often, in spite of all the child does, the frustration and the stress remain.

Unfortunately, the actions we have cited do get results of another sort. Teachers and administrators tend to react in a hypersensitive and hypercritical manner to the teacher's child. When he attempts to relieve the emotional stress in his peer relations, we react critically, reminding him and his fellow students of his parentage.

A teacher-friend of mine once found his freshman son assigned to his class. Son Bill spent one other period with the same group of students with another teacher who crusaded against feet on other people's chairs. One day she caught Bill red footed. "William!" she exclaimed, "what would your father say if he should see you like that?"

The immediate answer was, "My old man wouldn't say anything. He puts his feet in the bottom drawer."

Bill salvaged his status with his peer group, but he didn't make the rest of the year any easier in that class.

FROM ALL SIDES

When teachers single out the teacher's child and label him in the presence of his peers, they are contributing to his emotional problem. They are highlighting the fact that he is different and are saying, in effect, that he should behave differently because he is a teacher's child.

If he conforms, he faces further rejection and persecution from his peer groups. If he fails to conform, he is in trouble with authority. By lack of understanding, teachers intensify the child's emotional conflict, condemning him to disgrace among his peers or goading him into unacceptable behavior.

Though relationships with teachers and administrators are difficult and confusing, the teacher's child must also reckon with his teacher-parent. This can be the source of some very trying situations. His parents, like other teachers, may

remind him of his parentage, doing their best to set him apart, to make him different.

The teacher-parent places another unique and devastating responsibility on his child. Can a teacher's child be a slow reader? Should a principal's son ever be on the ineligible list? Can a teacher's child play hookey? Get into a fight in the locker room? What will the board of education think? Your father's job is in danger! Your mother's professional reputation will suffer!

The teacher's child knows he shouldn't do these things. But what is he to do if he feels compelled? What if emotional conflicts push him into error? Should he not be understood, helped, and a part of his burden lifted? Shouldn't we approach his problem with the understanding and counsel we offer other children? All too often, the teacher-parent, pushed by his own emotional disturbances, his fears, and his professional pride, heaps his burden onto the conscience of his child.

There are other ways in which we teacher-parents throw stumbling blocks in the paths of our children. We are so aware of all that can go wrong that we hover too closely over them. We anticipate everything they are going to do and we give them too much "help" at home. The parental question, "How did school go today?" is too often followed with a detailed grilling. In short, we make a "production" of our protection.

We are also likely to disrupt the normal progress of our children by expecting too much of them. They must make good marks, they must accept and exploit positions of leadership, they must be docile under the hand of authority—all to live up to the expected pattern of the teacher's child.

Another factor that tends to intensify the whole situation for the child and for the teacher-parent is that the parent thinks of himself as a teacher and a parent. To the child, the parent is never a divided personality; he is just Father or Mother.

As our children go through school, they need guidance and help as all children do. We know the mistakes they are making and why they are making them. We advise them in the same way that we advise thousands of other boys and girls. Why don't they listen to us?

At last we wake up! Do children ever listen to Dad when they are 14? Of course not! We cannot practice our professional skills on our children any more than doctors can successfully care for their own families in times of critical illness.

So at long last we go to school. We talk to guidance people and to teachers. Belatedly our children find the counsel and help they need from our professional associates. By bitter experience and no little suffering we learn a most wonderful thing. To our own children we are not school teachers. We are their dads and mothers. •

1961

Review of Literature on the Slow Learner

DONALD G. FERGUSON

In Education

THE slow learner, comprising 15 to 20 percent of the school population, presents very perplexing problems to the educator. Despite his presence in such large numbers, few teachers or administrators are contented with what the school is doing for him, and many are bothered by what he is doing to the school. To date, however, there is little evidence in the literature that the slow learner has been given serious constructive attention.

What problems does the literature on the subject treat and what does it say about them? These questions guided this review of professional journals, bulletins, and texts dealing with the education of slow-learning children.

Generally, professional organizations have not addressed themselves to the problems of educating the slow learner. In sum, those who do write on the subject are in agreement on the following points:

Slow-learning children are educable and are entitled to attention by the public schools. Slow-learning children are most clearly defined and identified on the basis of reduced learning ability. They lie on the intelligence continuum between the child of average ability and the child referred to as mentally retarded. Realistic programs can be offered for these children in the regular class, but attention must be given to specific objectives, methods, and materials of instruction.

Three major problem areas are evident in the literature. Two deal essentially with administrative or programing issues, and a third relates to matters of instruction.

Typical problems confronting administrators relating to educational programing for the slow learner are: where and how they are located, and what kinds of programs they need.

In practice and in the literature there is confusion about who is a slow learner. Generally, terminology is nonstandardized and troublesome to any other than the most astute reader. Yet there is agreement that classification and identification are essential to programing.

The answer to resolving the confusion seems to lie in restricting

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use of the term "slow learner" to children with limited learning potential in terms of school ability or IQ test scores and, further, to fix the range of IQ from about 75-90. At the lower end of the scale this would distinguish the slow learner from the mentally retarded whose IQ limits are fairly well established.

This restriction does not eliminate confusion at the upper end of the scale. In some instances the brighter, nonachieving pupil will test in the slow-learner range and often will perform academically like the slow learner.

In any case, additional testing and specialized help will be needed for optimum programing, for as a group they often have additional complicating sensory, physical, and psycho-social problems which must be considered in planning an effective program.

Through carefully planned and continuous testing programs, the slow-learning child can be identified as he enters school. This identification will aid the teachers who must know him to teach him and also aid the administrators who are concerned with long-range planning.

Most articles and studies explicitly make it clear that slow-learning children *can* learn and are the responsibility of the public schools. They can profit from an educational program geared to their abilities, and they have a right to expect one.

However, they do require special programing in that they cannot as a rule perform satisfactorily in the more difficult academic subjects; nor are these entirely satisfactory for them. A proper program will move more slowly, will delay each new step until the child's readiness is assured, will allow for the slow learner to get progressively farther behind the average and bright, and will allow for him to reach his peak of mental growth at an earlier point in the program.

SAME GENERAL GOALS

The general educational objectives need not be different for slow-learning children. The objectives of selfrealization, human relationship, civic responsibility, and economic efficiency are appropriate. However, for the slow learner to accomplish the general objectives, specific objectives should have an immediate relationship to his environment and life needs. They should be related to topics such as orientation to the school, living in the home, making and holding friends, boy-girl relationships, living in the community, personal and community health, and getting and holding a job.

The literature gives some attention to administrative questions of grouping, grading, and promotion. Generally, most authorities appeal for flexibility. Major consideration should be given to the aims to be accomplished and not to administrative expediency.

The policies adopted for organ-

izing classes and regulating progress should achieve several purposes. They should establish and maintain reasonably permanent instructional groups. They should provide for orderly progress and should bring the pupils to termination of their elementary education at not later than 13 or 14 years of age. They should provide for a smooth transition from the elementary-school to the secondary-school program.

There is no hard and fast recommendation concerning grouping. The authorities do agree that slow learners can be taught effectively in mixed classes, provided that the school is willing and able to make the adjustment.

There is usually criticism from professional and lay people when separate grouping is attempted. This criticism is based on the contention that separate grouping violates the principles of democracy. W. B. Featherstone answers that criticism: "Equal opportunity does not mean identical opportunity or that everyone should do the same thing." Perhaps our democratic ideals are best served if children are grouped to allow each pupil to have a program in line with his level and rate of progress. If grouping is desired, care must be taken to avoid the "dumping-ground" concept.

INSTRUCTION METHODS

There are many articles which treat various aspects of teaching slow-learning children. A review and analysis of the available materials reveal several points on which authors agree.

Slow-learning children generally learn through the same methods as brighter children. Thus, teaching methods will be essentially the same as those used with brighter children except that there should be a different emphasis. This point is similar to that made concerning objectives.

Activities must be carefully organized to insure continuity. They must also be offered in a way which will insure a reasonable degree of success and accomplishment for the slow-learning child.

Instructional goals should be clearly stated and meaningful. This is particularly important since slow-learning children are likely to be confused by abstractions and since they are most effectively motivated by concrete and relatively immediate goals.

Frequent evaluation of progress and frequent teacher-pupil conferences are highly desirable.

Techniques of instruction should include liberal amounts of demonstration, practice, and drill.

And materials should be selected on the basis of their appropriateness to the pupil's ability, readiness, and interests. The problem of finding materials that are not offensive to the child because of his more advanced physical and social age must be faced, even if it means preparing special materials for use with individuals and certain groups. •

What Do You Know about Today's Schools?

Facts and Figures

In NEA Research Bulletin

EVERYONE in education—teachers and administrators alike—should have at their fingertips important national facts and figures on the educational enterprise to which they devote their lives. No one can remember all the facts, of course, but many of the items selected for this listing probably should be included on the "must" list. Both the accomplishments and the shortcomings of public education today are shown.

The Pupils:

1. Total public-school enrolment was 15,503,000 in 1900; 25,678,000 in 1930; and 37,244,284 in 1960-61.

2. Public-school elementary enrolment is now estimated at 25,265,620, or 68 percent of the total; and secondary enrolment, at 11,978,664, or 32 percent of the total.

3. In 1900, 71.9 percent of the population 5 to 17 years of age was enrolled in public schools; in 1930, 81.7 percent; and in 1960-61, 82.7 percent.

4. The school-age population (5 to 17 years of age) increased 47 percent during the 10 years from 1950 to 1960, an increase two and one-half times the increase in the total population. In 1950, one person in five was of school age; in 1960, one person in four.

5. Of 1,000 pupils in the fifth grade in 1950-51, 885 entered high school in the fall of 1954, 584 were graduated from high school in the spring of 1958, and 308 entered college in the fall of 1958.

6. In urban elementary schools 380,000 children were in classes of more than 40 pupils each in 1959-60.

7. Nearly 400,000 children attended one-teacher schools in 1958-59.

8. The first "school attendance" law was enacted in 1852 in Massachusetts. Today, 47 states, the District of Columbia, and Puerto Rico have school attendance laws. Mississippi and South Carolina recently repealed their laws, and Virginia made its law dependent on local option. Thirty-six states and the District of Columbia set the *minimum* age for compulsory "school attendance" at seven years; six states, at age six; and five states, at age eight. The *maximum* age for compulsory "school attendance" is 16 years in 37 states and the District of Columbia; at 17 years in five states; at 18 years in four states; and at 15 years in one state.

9. More than 13.5 million chil-

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dren in 62,000 public and nonprofit private schools are participating in the National School Lunch Program. This past year $540 million was spent locally; $58 million was spent for food purchased by the U.S. Department of Agriculture; and $70 million worth of surplus food was used.

10. In 1957-59, a total of 11,343,132 pupils were transported to school at public expense, which totaled $419,539,863 (exclusive of purchase of new buses or other capital outlay).

Schools and Schools Systems:

1. In 1960-61, the number of school districts reached an all-time low of 37,153. Ten years ago there were 83,614; 20 years ago, 116,999. At present Nebraska has 3,250, the largest number in any state.

2. In 1959-60, slightly more than half the school districts enrolled fewer than 50 pupils each.

3. At the beginning of the school year 1959-60 there were 1,285,552 instruction rooms in the nation's public schools, 62,700 were scheduled for completion, and 132,400 additional ones were needed.

4. As of February 1960, in 17 Southern states and the District of Columbia, there were 6,973 school districts, of which 748 had been desegregated. These desegregated schools serviced 3,044,070 pupils of a total public-school population in this region of 12,940,443.

5. About 6 percent of the urban school districts operating elementary schools have an ungraded sequence; 25 percent are considering the adoption of such a plan (as of 1958-59). The most common practice where the ungraded sequence is used is through grade 3.

The Teachers:

1. In 1960-61, instructional staff members total 1,526,078. This number comprises 1,408,963 classroom teachers, 84,546 principals and supervisors, and 32,571 other instructional personnel.

2. There are 857,353 elementary-school teachers (125,477 men; 731,876 women). There are 561,609 secondary-school teachers (285,632 men; 265,979 women).

3. There are 93,917 teachers with emergency or temporary certificates employed in the public schools. Fifty-two percent are employed in rural schools and 52 percent have less than four years of college preparation.

4. As of September 1960, 110,000 teachers were needed to replace those leaving the profession the year before; 30,000 to serve increased enrolments; 30,000 to relieve overcrowding and half-day sessions; 20,000 to give instruction and services not now provided; and 40,000 to replace the unprepared—total, 230,000.

5. A 12-month year of employment for teachers was reported by about 5.2 percent of the urban school districts in 1958-59. This plan was about four times as common as 10 years before.

6. The average salary of the instructional staff in 1960-61 was

$5,389, with a purchasing power of $4,250 in 1947-49 dollars. It was estimated that in 1960-61, 10 percent of the public-school classroom teachers would be paid less than $3,500; 27 percent, from $3,500 to $4,499; 30 percent from $4,500 to $5,499; 18 percent, from $5,500 to $6,499; and 15 percent, $6,500 or more.

7. Sixteen percent of the urban school districts impose limitations on the employment of teachers outside school. Most commonly the requirement is that outside employment not interfere with teaching duties.

8. In 14 percent of the urban school districts having elementary grades, teachers are required to be on duty during the lunch period. Seventy-two percent require teachers to be on duty on a rotating basis, and 12 percent give teachers a duty-free lunch period.

Instructional Services:

1. In 1900, the average school term was 144 days; today it is 178.

2. In 1958-59 there were 15,850 (full-time equivalent) persons engaged in counseling and guidance in public secondary schools. A survey of 432 public high schools found that about a third had no guidance program, and many others only a limited program.

3. In 1959, 3.7 million students were enrolled in vocational educational courses. Of this number, 42 percent were in home economics, 21 percent in agriculture, 26 percent in trade and industry, and 8 percent in marketing. State and local funds provided 82 percent of the expenditures.

4. More than 1.9 million high-school students (24 percent of the enrolment in grades 9-12) were enrolled in foreign-language courses in 1958.

5. Twelve percent of the urban school systems are teaching one or more foreign languages in the elementary grades (1958-59).

6. In 1958-59, speech therapists were employed, at least to a limited extent, in 64 percent of the urban school districts. More than 60 percent of the urban districts make some provisions for remedial reading instruction.

7. In 1958-59, 60 percent of the urban school districts provided enrichment of instruction in regular classes for bright pupils.

8. It is estimated that 25,004 high schools (96 percent) and 31,328 elementary schools (30 percent) have libraries. About 20,000 professionally trained librarians serve school libraries (5,000 in elementary schools). There are about 15,000 untrained people serving as librarians.

9. There are about 177 million volumes in public-school libraries. Current expenditures for materials are estimated at $2 per pupil. Total 1959-60 expenditures for library materials were estimated at $35 million.

10. About 28 percent of the urban school districts make at least some provision for the programed use of television instruction.

11. Driver education is fully

provided to pupils in 72 percent of the urban school districts; limited provisions are made in 17 percent (1958-59).

12. For reporting pupil progress to parents of pupils in elementary grades, 77 percent of the urban school districts use a combination of report cards and parent conferences; 22 percent, report cards only; and about 1 percent, parent conferences only.

Educational Attainment:

1. In 1959, the median years of school completed by adults 25 years of age and older was 11.0; in 1950, it was 9.3; in 1940, 8.4.

2. In 1959, only 2.2 percent of the population was illiterate; in 1930, 4.3 percent; in 1900, 10.7.

3. In 1959, 24.7 percent of the Selective Service registrants failed the mental test; the range among the states was from 5.6 percent to 61.9 percent.

Revenues and Expenditures:

1. It is estimated that nearly 4 percent of the revenue receipts of public schools comes from the federal government; about 40 percent from the state governments; and about 56 percent from the local governments. Thirty years ago, less than 1 percent came from the federal government; about 20 percent from the state governments; and about 80 percent from the local governments.

2. Total school expenditures of $16.5 billion in 1960-61 are expected to exceed revenue receipts by $1.7 billion. The deficit will be met largely by long-term debt.

3. Expenditures for public schools, excluding capital outlay and interest, total $12.9 billion, or $390 per pupil in daily attendance. In 1930, current expenditures totaled $1.8 billion, or $86.70 per pupil.

4. School costs are expected to increase on the average at least $1 billion a year during the next decade. In the next 10 years we will spend more on public schools than was spent for that purpose in the past 100 years.

5. State and local government expenditures for all public education amounted to some $17.3 billion or 29.5 percent of the total expenditures by these governments.

6. Per-capita expenditures of state and local governments for local elementary and secondary schools was $79.58; for all public education, $99.75 (1959).

7. Expenditures for public schools in 1958 amounted to 3.7 percent of total personal income. •

A Fact that Figures

IT is ironical that Abraham Ribicoff, our new Secretary of Health, Education, and Welfare, voted against the creation of that agency when President Truman proposed it in 1950. He was a member of the House from Connecticut.—From *Mississippi Educational Advance*.

Can We Reform Our Illogical System?

Forward to Phonetics!

HELEN BOWYER

In Phi Delta Kappan

WHY make a problem out of reading? At least so far as word recognition goes. Why not undercut the whole time-waste of "isle, style, mile, guile"; the memory burden of "meter, liter, heater, teeter"; the reason-flouting of "since, rinse, sense, scent, cent, sent"? It could be done with a system of sound-sign relationships at least as teachable as that through which Russia expedites the education of her young.

One such system is World English, which America's Simpler Spelling Association and its British ally have long been offering. A modified demonstration example is as follows:

Pronounce *ae, ee, ie, oe, oo* as in *maelstrom, fee, fie, foe, fool*—*aa* and *au* as in *bazaar* and *bauble*—*uu* and *ou* as in *put* and *pout*—italicized *th* as in *thin* and *both*—*zh* as in *pleasure* or *Persian*. Give all other letters and digraphs their most common present values, but notice that short *i* supplants *y* in such words as *perfectly* and that *t* and *z* supplant *d* and *s* wherever they more truly represent the sound.

"Yoo aar oeld, Faathur Wilym," the yung man sed,
"And yoor haer haz bekum veri hwiet,
And yet yoo insesntli stand on yoor hed,
Doo yoo *th*ink at yoor aej it iz riet?"
"In mie yoo*th*," Faathur Wilym replied too hiz sun,
"Ie feerd it miet injur the braen,
But now that Ei'm purfekli shoor Ei hav nun,
Hwie Ei do it agen and agen."
"Buuli for him," chortld oeld Paul Hoil, kiking wun Purzhn slipur tordz the seeling, the uther *th*roo the dor.

Here in 83 words we have 40 basic spelling units matched one-to-one with the 40 basic sounds of our American speech. Together they constitute an alphabet as consistent and predictable as that through which the Soviet Union manages to have its children *reading* by Christmas of their first school year. That it holds a similar promise for us is demonstrated daily through those missionary fields of Asia and Africa where the

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Helen Bowyer is a retired teacher and social service worker. Reported from Phi Delta Kappan, *XLII (February 1961), 207–10.*

Committee for World Literacy uses approximately this system in the beginning teaching of English.

World English is not the only system actively engaged in providing one character and *one only* for each separate sound of our mother tongue. We have only to open our desk dictionary to find another. Says the Funk & Wagnalls unabridged, "That we should be compelled to respell words to show how they are pronounced is a pity and an absurdity, since the original and proper function of spelling is to do that very thing. The maker of a German, or Italian, or Spanish dictionary has rarely any need to respell a word to tell his countrymen how the word is pronounced. But in English the necessity exists and must continue to exist as long as our so-called orthography continues on its present footing. Hence arises the problem of a scientific alphabet."

AN ENDURING PROBLEM

Way back in 1903, the National Education Association was acutely conscious of this problem. With other groups it organized a committee which eventually produced the alphabet which, with some modifications, still appears in the Funk & Wagnalls unabridged dictionary as Key I to its respellings. Any hope the NEA may then have entertained that this alphabet would come into general use was doomed from the start by the diacritics used to indicate the value of its vowels. These diacritics still cripple today's dictionaries, even those compiled for the fourth and fifth grader.

When a nine-year-old turns to his Thorndike for the pronunciation of *falcon, urge, ruthless,* why should he be faced with the strangeness of *fôkən, ėrj, rüthlis,* when the familiar *faukn, urj, roothles* not only portray their sounds as well, but give him a sense of at-homeness in his dictionary which would lead to a more frequent and pleasurable use thereof?

A POSSIBLE SOLUTION

Perhaps the greatest single service the NEA could now render in the reading area would be to authorize a series of school dictionaries making this simple change. It would be almost the only change needed to bring most dictionaries to an all-Roman letter key of maximum simplicity and trustworthiness. Their consonants are already close to that ideal. Like World English, they discard *c, q, x,* turning their redundant functions over to the perfectly able letters herewith indicated: *s*istern, *k*up, brus*k*, *kw*it, a*ks*is, eg*z*it. And all join World English in eschewing the double consonant, as such, and dropping all silent letters which falsify pronunciation in such words as lim*b*, ed*g*e, sign, *m*nemonic, *p*seudo, etc. Moreover, all confine *y* to its consonantal function as in *yet* and *banyan* and respell *lyric, ugly, pity,* as *lirik, ugli, piti.*

In short, with little more than a Romanizing of their parenthetic

vowels, our dictionaries could not only facilitate a greater and more pleasurable resort to their pages but could provide young America with preparation for that inevitable day when our spelling will no longer be "a pity and an absurdity"—when, as in that Latin world just across a bridge from Brownsville or El Paso, the entry will take care of its own pronunciation and mere application of one's first-grade alphabet will ensure correct spelling of every native word one writes, from *aardvark* to *Zyzzogeton*. Then, in consequence, our Johnny will finish his eleventh grade neck and neck with Juanito in every subject which demands effortless command of the mechanics of reading.

Rudolph Flesch once described the methods of Dr. Frank Laubach of the missionary Committee for World Literacy as follows: "He always starts by working out a phonetic alphabet for the language he is dealing with and then teaches the natives in very short order to read and write it. Yes, if you have a language with a perfectly phonetic alphabet, you are in a sort of dream world where teaching to read and write is no problem at all. This is (all but) true, for instance in Spanish, Finnish, Czech . . . But let's get back from this dream world to the harsh reality of English."

Why should there be a harsh reality to get back to? Who or what imposes it on us? What is there in our Bible or our Constitution which obligates us to retard our children's education with 250 chameleon spellings for their 40 speech sounds? And whence came the good sense of these exemplary Spanish simplifications. Some may be surprised to learn that it came from just such scholarly initiative as our English spelling cries for today.

LANGUAGE SAFEGUARDS

In 1717 Spain's now lovely *Castellano* had sunk to a literary low which dismayed the proud and patriotic Marques de Villena. Not being a man to endure what he could cure, the Marques persuaded Phillip V to found a Royal Academy "to watch over the purity and proper use of the Castilian tongue."

The watch has been maintained to this hour—and over nothing more vigilantly than the consonance of Spanish sounds and symbols. And not only in peninsular Spain. The Hispanic world was a conglomerate of colonies of differing geography and differing Indian backgrounds and admixtures, largely isolated from each other and the outside world.

Surely these were conditions conducive to spelling chaos as serious as ours. But the *Dictionario* of the Royal Academy became the orthographic bible of what literate population the colonies had, and it remained the highest authority of the independent nations into which they evolved.

The need is evident and great for a comparable institution to serve the English tongue. •

★ With Education in Washington ★

THE EDUCATION DIGEST WASHINGTON BUREAU

New Education Commissioner.—On April 4, Sterling M. McMurrin was sworn in as the new head of the U.S. Office of Education. Immediately afterward he held his first news conference, which included a statement of his convictions. These include:

- American education must be consistent with the American democratic ideal. "We should [also] take note of the dedication to educational quality that is not uncommon in Europe, and the large commitment of economic wealth to education that is being made in the Soviet Union. Our present waste of human resources must give way . . .
- "I believe that desegregation must move forward in accordance with the law of the land . . .
- "I do not believe that the problem of financing education should be encumbered by social and legal issues that do not bear directly on education itself."
- Quality in education is not as good as it should be. "We must have greater rigor at all levels . . ."
- "We pay our teachers far less than we should . . . A general high quality of teaching in our schools will be achieved only when our society is willing to pay for it . . .
- "Increased emphasis on vocational education is an urgent national need . . .
- "We need more counseling and we need better counselors . . . We need better testing . . .
- "I regard education as a continuing process that extends beyond the schools. It should engage the active interest of every citizen and the resources of our libraries and television channels . . ."
- Finally, education is the road to abundance and material wealth, but education also is the road to cultural enrichment. "Most important, education is the road to genuine freedom . . ."

Dr. McMurrin, during the question period, made a favorable reference to the views of Admiral Hyman Rickover. This was played up in some of the reports to the point that the balance of the new Commissioner's remarks were obscured. As a teacher of philosophy, without public-school teaching experience, there were expectations that he would favor a "tough" line, emphasizing intellectual skills and courses for the gifted, at the expense of efforts in other areas.

His prepared statement gave no evidence of this, but the oral reference to the controversial Admiral provided an opening wedge.

Almost overlooked was Dr. McMurrin's emphasis on "a clear definition of the mission and organization of the Office of Education, employing the report of a committee that was established by my immediate predecessor, Dr. Lawrence G. Derthick."

Private School Hassle.—The Con-

stitution of the U.S. was the object of different interpretations on the question of federal loans to private and parochial schools. Spokesmen for Roman Catholic and small Jewish Orthodox groups held that such loans were constitutional and desirable.

A lengthy brief submitted by Abraham Ribicoff, Secretary of Health, Education, and Welfare, carefully pointed out that "the field of higher education . . . presents different factual, historical, and constitutional considerations." It then said that at the elementary and secondary level, "across-the-board grants to church schools may not be made" under the First Amendment. Loans are equally invalid. "Tuition payments for all church-school pupils are invalid since they accomplish by indirection what grants do directly."

The legal memorandum, prepared in cooperation with the Department of Justice, also points to areas of uncertain constitutionality, citing the Everson case in which bus transportation for parochial-school pupils was held to be legal, since the benefit is to the child and not to the school itself. On the other hand, the Everson decision said that the statute in question "approaches the verge" of impermissible action under the First Amendment.

The memorandum concluded, "Typically secular and sectarian education is so interwoven in church schools as to thwart most possibilities [of aid]."

Education as an Investment.—As the years go by, there is increasing sophistication in attempts to get fundamental answers to certain questions. Historically, there has been a belief that education is an investment, although supporting data were often lacking. This has been a belief rather than firm knowledge.

As educational costs have increased with the expansion of attendance, school holding power, and diversification of subject offerings, there has been more pressure to measure the benefits of education. A step in this direction was undertaken by the Chamber of Commerce of the U.S. when it published, in 1945, *Education—an Investment in People*. It concluded that "education is an essential instrument through which commerce, industry, and agriculture can be expanded in rising degree." Further, "that the cost of adequate education is an investment that local citizens and business can well afford in increased measure . . ."

The Chamber, in 1954, updated this publication with new tables and figures, including the statement that, "There is a direct relationship between education level and earning power, and, therefore, buying power in our total American economy."

More recently, the U.S. Bureau of the Census published data on the relationship between education and income. These findings show that income goes up with every additional year of schooling. For

example, the average male American with an incomplete elementary education earned less than $2,000 in 1958. Some high-school education boosted his income almost to the 1958 median for all employed males above age 14, which was $3,742. Graduates of high schools averaged near $4,500, while college graduates amass an annual total of $6,374.

Corresponding figures for women are appreciably lower, although they, too, show sharp increases with increased education, especially for employed college graduates. Cumulatively, the lifetime difference in earnings is far greater than the loss of earning power during the years of late adolescence or early adulthood when the hours normally devoted to work are given over to studies.

It is the loss of income during these school years which has attracted the attention of Theodore W. Schultz of the University of Chicago, who has been investigating "Education and Economic Growth." His latest report is part of the 1961 yearbook of the National Society for the Study of Education.

He finds the connection between the two to be "exceedingly complex" because "it is far from easy to identify those fruits of education that consist of improvements in the capabilities of a people that are useful in economic endeavor. It takes years as a rule to develop those capabilities and then it requires more years for these capabilities to prove their worth in production."

Dr. Schultz makes clear that he has merely made a preliminary inquiry. Nevertheless he concludes that there is an apparent underinvestment in education.

His chapter refers to the work by Gary S. Becker at the National Bureau of Economic Research. There, a preliminary study pointed to an outline of a general theory of investments in human beings.

Last month, the Carnegie Corporation of New York announced that it is making a further grant of $75,000 so that Dr. Becker can explore this theory in greater detail. He will attempt to determine how much money has been spent on education, and what rate of return this investment has yielded.

His findings are expected to be important for individual students who have to choose a field of study or occupation; there also should be important implications for new nations which face the problem of investing their limited funds.

Double Sessions.—"Not much research has been done on the effect of double sessions, probably because of a general belief that the situation is temporary and that its deficiencies are obvious." That's the finding of a new NEA research memorandum which then summarizes four studies at the elementary level and one high-school study.

The small number of investigations and the partly contradictory results "prevent drawing a definite

conclusion . . . These studies do indicate, however, that double sessions may retard the pupil even in the learning of the fundamentals . . ."

In addition, there are disadvantages for administrators, teachers, and parents. Above all, there is practically no available research from which to draw valid conclusions.

Liberal Adult Education. – A grant of $225,000 has been awarded to the National Association of Public School Adult Educators to be used to improve and enlarge offerings in liberal subjects.

Granting foundation is the Fund for Adult Education (Ford) which has been disbursing money to NAPSAE since 1953.

The latest installment – total grants now come to $663,000–will continue a greater effort to provide information, guidance, pilot studies, and in-service training. Some 21 communities will be chosen to receive funds so that they can hire half-time directors of adult education where now they have none. Hope is that after a year the superintendents of these 21 school districts will later expand these to full-time jobs with local funds.

Focus of the program is growth stimulation of adult citizenship–active participation in community affairs based on responsible decisions.

Educational Television.–In two cities, New York and Los Angeles, there are seven commercial television channels in operation, with no allocation for an education channel in the VHF band, the band in general use today.

The Federal Communications Commission has now proposed that in each of these cities one of the commercial licenses be transferred to an educational telecasting organization. Negotiations may take some time, especially because one of the New York channels currently is up for sale, with competing offers being made. Commercial interests, not surprisingly, are offering more than the substantial sum scraped together by the ETV people.

Meanwhile, the Senate has approved a new bill to make $1 million available in each of the 50 states for the construction of ETV facilities. On two earlier occasions the Senate had passed a similar bill which failed of passage in the House.

In addition to prohibiting federal control over programing or content, the bill requires successful applicants for the construction grants to demonstrate the availability of operating funds for the proposed stations.

Ellis Island.–Ambitious plans to build a university on federally owned Ellis Island, in New York Harbor, have fallen through.

The Department of Health, Education, and Welfare has rejected all bids as not meeting the necessary requirements. •

• Educational News •

CHANGES IN SUPERINTENDENCIES:

East Orange, N.J.: **Robert H. Seitzer,** formerly acting superintendent, is now superintendent.

Elizabeth, N.J.: **John E. Dwyer,** formerly assistant superintendent, has succeeded **J. Harry Adams,** now assistant commissioner, New Jersey State Department of Education.

Jersey City, N.J.: **Robert A. Coyle,** formerly principal of James J. Ferris High School, has been named superintendent.

Sacramento, Calif.: **William J. Burkhard** has announced his retirement.

Massillon, Ohio: **L. J. Smith** will retire on July 1.

Portland, Ore.: **Melvin W. Barnes,** superintendent at Oklahoma City, Okla., has been named successor to **J. W. Edwards,** retiring.

Oklahoma City, Okla.: **Jack F. Parker,** assistant superintendent, has been appointed to succeed Melvin W. Barnes.

Fort Wayne, Ind.: **Lester L. Grile,** assistant superintendent, will succeed **A. T. Lindley,** who has resigned, effective Aug. 1, to become associate professor of education at Purdue University.

Anderson, S.C.: **J. B. Hodges,** Greenville County, S.C., School District, will become superintendent in July.

Cleveland Heights, Ohio: **Theos I. Anderson,** superintendent at Teaneck, N.J., has been appointed superintendent.

COLLEGE PRESIDENTS:

Troy State College, Ala.: **Frank R. Stewart,** formerly Alabama state superintendent of education, has been appointed to succeed **C. B. Smith,** who retires June 30.

North Dakota Agricultural College, Fargo: **Frederic S. Hultz** has resigned because of illness.

City College, New York, N.Y.: **Buell G. Gallagher** has resigned to become first chancellor of California's State College System in July.

TEACHER-TRAINING INSTITUTIONS:

University of Bridgeport, Conn.: **R. Daniel Chubbuck,** superintendent at Darien, has been appointed Dana Professor of Education, effective next year.

Queens College, Charlotte, N.C.: **John Otts,** assistant superintendent, Charlotte and Mecklenburg County, has been named professor of education.

Western Michigan University, Kalamazoo: **Harold W. Boles,** formerly educational consultant for an architectural firm in Newark, Ohio, is now professor of education.

OTHER CHANGES AND APPOINTMENTS:

Don Davies, director of student teaching, College of Education, University of Minnesota, has been appointed executive secretary of the National Commission on Teacher Education and Professional Standards, effective Aug. 20. He succeeds **T. M. Stinnett,** now assistant executive secretary of the NEA.

John P. Milligan, New Jersey State Department of Education, has resigned to represent the U.S. as chief education adviser to the government of Ecuador.

Herman Allen, formerly education editor of *Newsweek,* has been appointed manager for the Centennial Convocation sponsored by the American Association of Land-Grant Colleges and State Universities. The event is scheduled for Nov. 12-16, 1962, at Kansas City, Mo.

John W. Harold, superintendent at Cedar Falls, Ia., will become executive secretary of the Iowa State Education Association in July.

Marion Cranmore, principal of

Burns Park School, Ann Arbor, Mich., has been named president-elect of the Department of Elementary School Principals, NEA.

James W. Kanthak of Redwood City, Calif., and **Thelma Overbeck** of Evansville, Ind., are the first winners of the new Hilda Maehling Fellowships, recently established by the Department of Classroom Teachers, NEA.

J. Fred Murphy, principal of Broad Ripple High School, Indianapolis, Ind., has been elected president of the North Central Association.

Frank Miles, superintendent at Limon, Colo., has been appointed executive director of the Colorado Association of School Boards.

William C. Greer, regional programs associate for the Southern Regional Education Board, Atlanta, Ga., has been named executive secretary of The Council for Exceptional Children. He will succeed **Harley Z. Wooden,** the Council's first executive secretary, who will retire in July after 11 years in the position.

H. I. Willett, superintendent of schools, Richmond, Virginia, has been appointed a member of the United States National Commission for Unesco.

J. R. Rackley, dean of the college of education, Pennsylvania State University, is the new president of the American Association of Colleges for Teacher Education.

The Most Rev. John F. Dearden, archbishop of Detroit, has been elected president of the National Catholic Educational Association.

RECENT DEATHS:

Julian E. Butterworth, first director of the school of education at Cornell University and a former consultant to the U.S. Office of Education on rural school administration, at the age of 76.

Forest C. Ensign, professor emeritus in the school of education, The State University of Iowa, Iowa City, and a former member of the faculty for 56 years, at the age of 94.

Creative Talent

"OF all that has been learned in operating the Merit Program for five years, the most significant is the recognition of how little is known about identifying creative talent," John M. Stalnaker, president of the National Merit Scholarship Corporation, declared in a recent speech at the Carnegie Institute of Technology.

Even less is known about the proper development of creative talent, he reported. He stated that Merit Program researchers have been at work on the question of creativity for the past three years. "Although Merit's researchers and others elsewhere are beginning to make progress on this problem, there are no adequate measures at present to spot the potentially creative individuals," he said.

Stalnaker also expressed doubts about the emphasis many persons now place on an individual's IQ. "Frankly," he said, "the IQ is overrated . . . In the final analysis, it is not how bright one is, but what one accomplishes that counts. Motivation, ambition, the ability to direct one's efforts toward a specific goal, and sheer energy level, if there be such a trait, are characteristics which the IQ must not overshadow even though they cannot be measured easily."

The Merit Scholarship Program this year awarded 85 special four-year scholarships out of the Merit

Corporation's own resources in a new experimental program. Twenty-five of the new scholarships were to students whose records *suggest* promise for exceptional creative performance.

"Our present method for selecting these potentially creative students is only a first step," said Mr. Stalnaker, "but we believe we are on the right track."

A U.S. Summerhill

A SUMMERHILL Society has been formed in New York City with an announced purpose of establishing a "Summerhill" school in the United States based on the principles of selfregulation. The organization is an outgrowth of the interest created by the recent publication of *Summerhill: A Radical Approach to Child Rearing* by A. S. Neill, who has conducted such a school in England for more than 40 years.

Announced plans are that the new school, to be situated in the Greater New York area, will follow the principle of "freedom without license," implying the equal rights of teachers and children with no one infringing on the rights of any other. It will be run on a nonprofit basis.

New Ford Grants

THE Ford Foundation in April announced new grants totaling $3,742,000 for experiments to improve the preparation of school and college teachers.

The grants are the latest phases of two on-going Foundation efforts, one to help achieve a breakthrough in the training of school teachers, and the other to attract more and better students into college teaching and improve their training.

The new grants were as follows: $1,844,000 for cooperative programs at Cornell and Syracuse Universities and the Universities of Buffalo and Rochester to prepare secondary-school teachers and school administrators; $500,000 to the University of Maine to strengthen the training of elementary-school and secondary-school teachers; and a total of $1,398,000 for college-teacher recruitment and training programs at Stetson and Vanderbilt Universities and the Universities of Florida, Louisville, Michigan, New Mexico, and Utah.

Taylor U. to Move

TAYLOR University, which has been located at Upland, Ind., for the past 68 years, will be moved back to Fort Wayne, Ind., the city in which it was founded in 1846, according to a recent decision by the university board of trustees.

A major fire destroyed the school's administration building in Upland a year ago. Since that time, college officials have shopped around in Indiana and Florida for a new campus site. While the school still has 10 buildings on its Upland campus, the inaccessibility to Upland by public transportation, plus the need for being in an area where students may find part-time work, is said to have prompted

school officials to seek a new site.

The new $10 million campus is being planned for a 233-acre site on the northeast side of Fort Wayne, according to B. Joseph Martin, president of Taylor University.

Teacher Reciprocity

NINETEEN states have now agreed to issue teacher's certificates to graduates of any nationally accredited teacher-education institutions, according to a recent announcement from the National Commission on Teacher Education and Professional Standards.

Under this agreement, graduates may be licensed to teach in each of the 19 states, as well as their home states, without having to take additional courses to qualify themselves.

The graduates must be from colleges and universities accredited by the National Council for the Accreditation of Teacher Education (NCATE). The NCATE has now accredited 343 colleges and universities; these institutions annually produce about 70 percent of the nation's supply of new teachers.

As of February 1961, teacher-education graduates from these 343 institutions are eligible for certification in the following states: Alabama, Delaware, Florida, Georgia, Illinois, Iowa, Kentucky, Louisiana, Missouri, Nebraska, Oregon, Pennsylvania, Rhode Island, Tennessee, Utah, Vermont, Washington, West Virginia, and Wyoming. The NCATE has been conducting a drive for this reciprocity for the last seven years.

Ten Schools Honored

TEN secondary schools in the U.S. have received special recognition by the American Association of Physics Teachers for excellence in science and mathematics programs, with special attention given to physics teaching.

The 10 schools honored were: West High School, Phoenix, Ariz.; Oak Park River Forest High School, Oak Park, Ill.; Lamar High School, Houston, Tex.; Garden City High School, N.Y.; Culver Military Academy, Ind.; Melbourne High School, Fla.; Beaverton High School, Ore.; Glen Rock High School, N.J.; Benjamin Franklin Senior High School, New Orleans, La.; and Western Reserve Academy, Hudson, Ohio.

This is the third year such awards have been made. Eric Rodgers, dean of the graduate school, University of Alabama, is chairman of the Association's High School Awards Committee.

DATES OF THE MONTH:

May 4-6, National School Boards Association, Philadelphia, Pa.

DATES OF THE COMING MONTHS:

June 25-30, National Education Association, Atlantic City, N.J.

Sept. 29-Oct. 4, Department of Rural Education, NEA, Pittsburgh, Pa.

Oct. 23-26, National Association of Educational Broadcasters, Washington, D.C. •

Development in and through Reading and **Social Forces Influencing American Education.** Chicago: The National Society for the Study of Education, 1961. Pp. xviii + 406 and x + 252. $5.00 cloth, $4.25 paper-bound; and $4.50 cloth, $3.75 paper-bound, respectively.

These two volumes form the 60th Yearbook of the National Society for the Study of Education.

Development in and through Reading (Part I) was prepared by the yearbook committee composed of Paul A. Witty, Robert C. Pooley, Helen M. Robinson, David H. Russell, and Ruth Strang.

The developmental aspects of reading are emphasized in this volume. Some of the chapter topics are: the contributions of linguistic studies to the teaching of reading, the effects of improvement of reading on achievement in other subjects, the influence of community forces on reading habits, the importance of motivation and interest, the use of auditory and visual materials, and sequential development in reading.

Included among the contributing authors, in addition to the committee members, are: Robert Thorndike, Nila B. Smith, Russell G. Stauffer, Ruth G. Strickland, and G. Robert Carlsen.

Social Forces Influencing American Education (Part II) was prepared by Ralph W. Tyler, Merle L. Borrowman, Robert J. Havighurst, and Vincent Ostrom.

In an introductory chapter, Ralph W. Tyler notes many of the forces influencing education today and comments, "Those of us directly involved in the conduct of and study of education find these marked and fluctuating changes hard to understand. They do not fit the pattern of growth characteristic of the period prior to 1940, nor are they in accord with the rationale of American educational development outlined in the leading professional publications."

The succeeding chapters explore the educational scene today by examining education as an investment in economic growth, the changing population, social-class influences, influence of traditional values, influence from pupils, the influence of professional organizations, and the influence of mass media. There is also a chapter by Vincent Ostrom that examines education in a political context.

Nelson B. Henry edited both volumes of the Yearbook.

Counseling in the Secondary Schools. John W. Loughary. New York: Harper & Brothers, 1961. Pp. xi + 153. $3.00.

The author writes in the preface to this book: "What many school counselors lack and need is a counseling frame of reference, one that is appropriate to the kinds of problems they encounter, and consistent with the type of institution in which they work . . . The objective of this book is to provide one such frame of reference and to discuss and illustrate its applications . . . There is no systematic attempt to review the general principles and concepts which are basic to almost all nonanalytic theories of counseling, except as this is necessary to clarify the frame of reference discussed."

The author accomplishes his objective by portraying the counselor functioning in the school community, outlining the scope of contexts within which the counselor works, and illustrating the problems, situations, and relationships encountered.

The author, a former high-school teacher and counselor, is now associ-

ate professor of education, University of California, Berkeley.

William Chandler Bagley. I. L. Kandel. New York: Bureau of Publications, Teachers College, Columbia University, 1961. Pp. ix + 131. $3.50.

This year marks the 50th anniversary of the founding of Kappa Delta Pi, professional honor society in education. Dr. William Chandler was one of the founders of the society and this biography was commissioned by the organization's executive council.

The book, the author states, "presents an account of the professional activities and contributions of an educator who, more than any other in his day, strove to maintain a balanced point of view in education in the midst of the constant bombardment of an increasing number of cure-alls and panaceas which he began to criticize as early as 1907."

The author, now professor emeritus of education, Teachers College, Columbia University, for many years was closely associated with Dr. Bagley while both were members of the Columbia faculty.

Junior High School Guidance. Mauritz Johnson, Jr., William E. Busacker, and Fred Q. Bowman. New York: Harper & Brothers, 1961. Pp. x + 275. $4.00.

This guidance text is concerned solely with guidance programs at the junior-high-school level. Programs are described for both large and small schools with specific procedures outlined. Included are: a suggested guidance calendar, a list of test publishers, and bibliographies with each chapter.

The first chapter, concerned with the development of the junior-high school and the guidance movement, prepares for the following chapters by discussing the educational functions of the junior-high school and relating guidance to the specific functions of the junior-high school.

Foundations of Guidance. Carroll H. Miller. New York: Harper & Brothers, 1961. Pp. xv + 464. $6.00.

Dr. Miller is now serving with the U.S. Office of Education as Specialist, Preparation of Personnel Workers. He is a former head of the department of psychology and education at Colorado State University.

This book, suggested as a first-course text in guidance preparation, emphasizes relating guidance to social and cultural backgrounds.

The historical development of guidance is traced and integrated with materials from psychology, sociology, cultural anthropology, and philosophy of education.

An extensive listing of references furnishing guides to materials accompanies each chapter.

OTHER MATERIALS RECEIVED:

ELEMENTARY

Comparison of Practices in Handwriting Advocated by 19 Commercial Systems of Handwriting Instruction. Virgil E. Herrick. 1960. Pp. xi + 111. Available from the Handwriting Foundation, 1426 G. St., N.W., Washington 5, D.C. $1.50.

Health Guidance in Elementary Schools. New York City Board of Education Curriculum Bulletin No. 7, 1959-60. Pp. iv + 38. Available from New York City Board of Education Publications Sales Office, 110 Livingston St., Brooklyn 1, N.Y. $.50.

Courageous Comrades. Fredrika Shumway Smith. Chicago: Rand McNally & Company, 1960. Pp. 200. $2.95. A story of the Wisconsin Territory—1836-1848.

Marksmanship for Young Shooters; The Air Rifle as an Instructional Tool. Washington, D.C.: American Associa-

tion for Health, Physical Education, and Recreation, NEA, 1960. Pp. 25.

Secondary

Down the Colorado with Major Powell. James Ramsey Ullman. Boston: Houghton Mifflin Company, 1960. Pp. 184. $1.68. One of the North Star Books series.

Preparation of General Secondary School Curricula. Unesco. 1960. Available from Columbia University Press, New York. Pp. 398. $4.00.

Electric Typing Methods for the Teacher. 1961. Pp. 32. Available free from School Typewriter Department, Royal McBee Corp., Port Chester, N.Y.

Guidance

Today's Woman in Tomorrow's World. U.S. Women's Bureau Bulletin 276, 1960. Pp. xii + 138. Available from U.S. Government Printing Office, Washington 25, D.C. $.50.

Your Personality and Your Job. Daniel Sinick. **What Tests Can Tell You About You.** Arthur E. Smith. Chicago: Science Research Associates, Inc., 1961. Pp. 48 each.

General

Introduction to India. Beatrice Pitney Lamb. Washington, D.C.: American Association of University Women, 1960. Pp. 49. $1.00.

Equipment and Supplies for Athletics, Physical Education, and Recreation. Washington, D.C.: American Association for Health, Physical Education, and Recreation, 1960. Pp. vi + 97. $2.50.

The South African Tradition. 1961. Pp. 28. Available free from Information Service of South Africa, 655 Madison Ave., New York 21, N.Y.

The Educated Woman in Cartoon and Caption. Anne Cleveland and Jean Anderson. New York: E. P. Dutton & Co., Inc., 1960. Pp. 90. $1.95.

Soviet Education Program. William K. Medlin, Clarence B. Lindquist, and Marshall L. Schmitt. Washington, D.C.: U.S. Office of Education Bulletin No. 17, 1960. Pp. xvii + 281. Available from U.S. Government Printing Office, Washington 25, D.C., $1.25.

State Minimum-Salary Laws and Goal Schedules for Teachers, 1960-61 and **Salary Schedule Maximums for School Administrators, 1960-61, Urban Districts 100,000 and Over in Population.** Washington, D.C.: Research Division, NEA, 1960. Pp. 44 and 48. $.50 and $.75, respectively.

The Genius of the Irish Theater. Edited by Sylvan Barnet, Morton Berman, and William Burto. New York: New American Library of World Literature, Inc., 1960. Pp. 368. $.75, paperback. A Mentor original.

The Wellsprings of Life. Isaac Asimov. New York: New American Library of World Literature, Inc., 1961. Pp. 192. $.50, paperback.

The Ancient Myths. Norma Lorre Goodrich. New York: New American Library of World Literature, Inc., 1960. Pp. 252. $.50, paperback. A Mentor original.

Estimates of School Statistics, 1960-61. Washington, D.C.: Research Division, NEA, 1960. Pp. 32. $.75.

New Designs for Research in Teacher Competence and **Who's a Good Teacher?** Robert B. Howsam. Burlingame, Calif.: California Teachers Association, 1960. Pp. 48 each. $1.00 each. Reports of special projects prepared for and published by the Joint Committe on Personnel Procedures, California School Boards Association and the California Teachers Association.

Encouraging the Excellent; Special Programs for Gifted and Talented Students. Elizabeth Paschal. New York: The Fund for the Advancement of Education, 1960. Pp. 79. Free.

The Education of Businessmen. Leonard S. Silk. New York: Committee for Economic Development, 1961. Pp. 48. Available free from the Committee, 711 Fifth Ave., New York 22.

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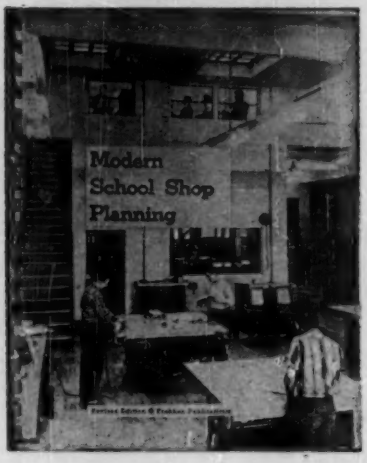

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